Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparison of the effect of blood flow rate and dialysate change on comfort and dialysis adequacy of the patient under hemodialysis

Protocol summary

Summary

The aim of this study is Comparison the effect of blood flow rate and dialysate change on comfort and dialysis adequacy of the patient under hemodialysis.35 patients under hemodialysis, between 18 to 65 years old, who are receiving hemodialysis three times a week for 4 hours in each session and have at least the history of one year of hemodialysis are selected. before each dialysis a check list included patients hemodialysis features is filled out and then the patient is connected to the machine.before dialysis a blood sample of arterial set is provided. in the first session of hemodialysis the blood flow rate is set on 250 and the dialisate flow rate is set on 500 ml/min, in the second session the blood flow rate is set on 250 and the dialisate flow rate is set on 800 ml/min,in the third session the blood flow rate is set on 300 and the dialisate flow rate is set on 500 ml/min,in the fourth session the blood flow rate is set on 300 and the dialisate flow rate on 800 ml/min.in the end of each hemodialysis session and before separation the patient from the machine ,a blood sample of arterial set is provided again.research units are checked for urea.ultrafiltration rate is gained of the difference between weight of before and after dialysise . after receiving the result of blood urea nitrogen , Daugirdas II formula which is one of the acceptable ones in the world is used to determine the dialysis adequacy.in each sessions ,the patients are evaluated for comfort by the visual comfort scale and researcher structured quesstionare.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016030726947N1**
Registration date: **2016-06-15, 1395/03/26**
Registration timing: **prospective**
Last update:
Update count: **0**

Registration date

2016-06-15, 1395/03/26

Registrant information

Name
Mina Begian
Name of organization / entity
Hamedan University of Medical Science
Country
Iran (Islamic Republic of)
Phone
+98 81 3838 0535
Email address
m.begian@edu.umsha.ac.ir

Recruitment status

Recruitment complete

Funding source

Hamedan University of Medical Sciences

Expected recruitment start date

2016-06-21, 1395/04/01

Expected recruitment end date

2016-10-22, 1395/08/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of blood flow rate and dialysate change on comfort and dialysis adequacy of the patient under hemodialysis

Public title

The effect of blood flow rate and dialysate change of the patient under hemodialysis

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:Age between 18 to 65 years old; Having arteriovenous fistula; Receiving hemodialysis three times a week; 4 hours dialysis in each session; lack of intolerance dialysis in sessions;The desire to participate in the study; Patients without a history of cardiovascular diseases; At least the history of one year of dialysis Exclusion criteria :lack of cooperation by the patient; Cardiac and pulmonary disease in patient; Kidney transplant; The patient died

Age

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

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **35**

Randomization (investigator's opinion)

N/A

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Hamedan University of Medical Sciences

Street address

Hamedan University of Medical Sciences, Shahid Fahmideh Street, Hamedan

City

Hamedan

Postal code

6517838698

Approval date

2016-03-03, 1394/12/13

Ethics committee reference number

IR.UMSHA.REC.1394.525

Health conditions studied

1

Description of health condition studied

Chronic kidney disease, End stage kidney disease

ICD-10 code

N18.5

ICD-10 code description

Chronic kidney disease, stage 5

Primary outcomes

1

Description

Dialysis Adequacy

Timepoint

Before and After Hemodialysis Session

Method of measurement

The result of blood urea nitrogen before and after hemodialysis , Daugirdas II formula

2

Description

Comfort

Timepoint

End of Hemodialysis

Method of measurement

Visual comfort scale and Researcher structured quesstionare

Secondary outcomes

empty

Intervention groups

1

Description

In all the patients, in the first session of hemodialysis the blood flow rate is set on 250 and the dialisate flow rate is set on 500 ml/min, in the second session the blood flow rate is set on 250 and the dialisate flow rate is set on 800 ml/min,in the third session the blood flow rate is set on 300 and the dialisate flow rate is set on 500 ml/min,in the fourth session the blood flow rate is set on 300 and the dialisate flow rate on 800 ml/min.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Hamedan Besat Hospital

Full name of responsible person

Mina Begian

Street address

Besat Hospital, shahid Beheshti Street, Hamedan

City

Hamedan

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Research and Technology Vice-Chancellor Hamedan University of Medical Sciences
Full name of responsible person
Saeed Bashirian
Street address
Research and Technology Vice-Chancellor, Hamedan University of Medical Sciences, Shahid Fahmideh Street, Hamedan
City
Hamedan
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Research and Technology Vice-Chancellor Hamedan 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
Hamedan University of Medical Sciences
Full name of responsible person
Seid Reza Borzou
Position
PhD of Nursing/Assisstant Professor
Other areas of specialty/work
Street address
Hamedan University of Medical Sciences, Shahid Fahmideh Street, Hamedan
City
Hamedan
Postal code
6517838698
Phone
+98 81 3838 0535
Fax
+98 81 3838 0447
Email
borzou@umsha.ac.ir
Web page address
http://www.umsha.ac.ir/

Person responsible for scientific inquiries

Contact
Name of organization / entity
Hamedan University of Medical Sciences
Full name of responsible person
Seid Reza Borzou
Position
PhD of Nursing/ Assisstant Professor
Other areas of specialty/work
Street address
Hamedan University of Medical Sciences, Shahid Fahmideh Street, Hamedan
City
Hamedan
Postal code
6517838698
Phone
+98 81 3838 0535
Fax
+98 81 3838 0447
Email
borzou@umsha.ac.ir
Web page address
http://www.umsha.ac.ir/

Person responsible for updating data

Contact
Name of organization / entity
Hamedan University of Medical Sciences
Full name of responsible person
Mina Begian
Position
Master of Science of Nursing/ Nurse
Other areas of specialty/work
Street address
Hamedan University of Medical Sciences, Shahid Fahmideh Street, Hamedan
City
Hamedan
Postal code
6517838698
Phone
+98 81 3838 0535
Fax
+98 81 3838 0447
Email
m.begian@edu.umsha.ac.ir
Web page address
http://www.umsha.ac.ir/

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