

Clinical Trial Protocol

Iranian Registry of Clinical Trials

05 Jul 2026

Effectiveness of oral pentoxifylline for the prevention of contrast nephropathy in CKD patients undergoing coronary angiography

Protocol summary

Summary

(1) Determine the average levels of blood creatinine in the group receiving the NAC; To determine the effect of changes in serum creatinine in the group receiving pentoxifylline plus NAC; Determine and compare the prevalence of blood creatinine changes in the group receiving the NAC plus pentoxifylline with NAC alone; The frequency of contrast-induced nephropathy in patients undergoing coronary angiography (2) Controlled clinical trial (3) Measurement of serum creatinine level before angiography. Patients were randomly divided into two equal groups (4) The terms of inclusion: ckd with angiography and cardiac catheterization; Age greater than 18 and less than 75 years; Terms of withdrawal from the study follow-up treatment with theophylline in the previous month, furosemide, mannitol or dopamine, nonsteroidal anti-inflammatory drugs, renal failure; Patients with serum creatinine equal to or less than 1.5 mg per deciliter; Sensitivity to contrast material, emergency coronary angiography; Radiocontrast diagnostic use in the last 2 months for reasons other diagnostic; Congestive heart failure (5) The administration of NAC 1200 mg every 12 hours in addition to hydration the day before angiography and prescribed pentoxifylline 400 mg every 8 hours in addition to hydration and N-acetylcysteine. Measure and record patients' serum creatinine levels in both groups after 24 hours and compared with admission creatinine. (6) Serum creatinine

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015102624713N1**

Registration date: **2016-03-09, 1394/12/19**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2016-03-09, 1394/12/19

Registrant information

Name

Mahmood Kordi

Name of organization / entity

Zahedan University of Medical Science

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Iran (Islamic Republic of)

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Email address

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Recruitment status

Recruitment complete

Funding source

Vice chancellor for research,Zahedan University of Medical Sciences

Expected recruitment start date

2016-01-09, 1394/10/19

Expected recruitment end date

2016-11-21, 1395/09/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effectiveness of oral pentoxifylline for the prevention of contrast nephropathy in CKD patients undergoing coronary angiography

Public title

Effectiveness of pentoxifylline in contrast induced nephropathy

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria of ckd patients with angiography and cardiac catheterization indication include:Age greater than 18 and less than 75 years, Patient satisfaction for the study Exclusion criteria include : problems in patients follow up, treatment with theophylline, furosemide, mannitol or dopamine in last one month, use of Nonsteroidal anti-inflammatory drugs, aminoglycosides, N-acetylcysteine drugs, Renal failure patients with serum creatinine equal to or less than 1.5 mg per deciliter, Patients with an allergy to contrast material, Patients with Multiple myeloma, Pulmonary edema, Uncontrolled hypertension, patient required emergency angiography, diagnostic use of radiocontrast material for patient in the last 2 months of other diagnostic reasons, congestive heart failure, pregnancy, lactation Sensitivity to the NAC or pentoxifylline

Age

From **18 years** old to **75 years** old

Gender

Both

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **60**

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

Ethics Committee of Zahedan Medical University of Science

Street address

Ethics Committee of Zahedan Medical University of Science, Zahedan Medical University of Science, Dr.Hesabi Square, Daneshgah Avenue, Zahedan

City

Zahedan

Postal code

Approval date

2015-09-23, 1394/07/01

Ethics committee reference number

IR.ZAUMS.REC.1394.221

Health conditions studied

1

Description of health condition studied

Contrast Nephropathy

ICD-10 code

N17, N18,

ICD-10 code description

Renal failure

Primary outcomes

1

Description

Serum Creatine

Timepoint

at admission, 24 h after intervention

Method of measurement

blood test based on milligram on decilitre

Secondary outcomes

1

Description

Contrast Nephropathy

Timepoint

24 hours

Method of measurement

blood test based on milligram on decilitre

Intervention groups

1

Description

In the control group N-acetylcysteine 1200 mg administered every 12 hours in addition to hydration will be prescribed

Category

Treatment - Drugs

2

Description

In the intervention group, prescribed pentoxifylline 400 mg every 8 hours plus hydration and NAC In the control group , prescription N-acetylcysteine 1200 mg every 12 hours is recommended in addition to hydration

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Ali Ebn Abi Taleb Hospital, Zahedan

Full name of responsible person

Mahmoud kordi

Street address

Internal Medicine Department, Zahedan Ali ibn Abi Talib Hospital, Salamat Blvd, Dr.Hesabi Sq., Zahedan

City

Zahedan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research,Zahedan University of Medical Sciences

Full name of responsible person

Mohsen Taheri

Street address

, Vice chancellor for research, Zahedan University of Medical Sciences, Hesabi Square, Zahedan

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Zahedan

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,Zahedan 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

Zahedan Medical University

Full name of responsible person

Mahmoud Kordi

Position

Internal medicine residence

Other areas of specialty/work

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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