Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Comparison Dopamine and Nor-epinephrine on End tidal carbon dioxide pressure in patients with septic shock

Protocol summary

Study aim
comparing the effect of using norepinephrine or dopamine on ETco2 of patients with infectious shock

Design
394/5000 The first group received epinephrine light medication and the second group received dopamine. Age, sex, blood pressure at baseline and 30 minutes and 120 minutes after treatment and initial ET-CO2 and ET-CO2 at 30 and 120 minutes, respectively. It is then measured and recorded, and then the effects of each of the two drugs mentioned above in treating shock based on improved hemodynamic symptoms and increased CO2 levels are compared and compared.

Settings and conduct
The study will be conducted in Imam Khomeini hospital of sari a training center on 138 patients with depressive disorder. The drugs were formulated and put in a separate container and then given a separate code for each container. The physician, nurse, and patient were unaware of the type of medication, and the patients were randomized based on simple random

Participants/Inclusion and exclusion criteria
The inclusion criteria comprised patients aged 18 years or older, undergone mechanical ventilation, and required vasopressor (dopamine or norepinephrine) for shock therapy patients under 18 years of age, with trauma, chronic lung disease, definite brain death, cardiac arrhythmia, referred from other centers, or with more than 2-hour hospitalization in the emergency department were excluded from the study.

Intervention groups
The first group of epinephrine The second group is dopamine

Main outcome variables
ETco2 Measurement

General information

Reason for update
Modify the number of study samples

Acronym

IRCT registration information
IRCT registration number: **IRCT2015101924606N1**
Registration date: **2016-10-13, 1395/07/22**
Registration timing: **registered_while_recruiting**

Last update: **2020-01-28, 1398/11/08**
Update count: **1**

Registration date
2016-10-13, 1395/07/22

Registrant information

Name
Hamed Aminiahidashti

Name of organization / entity

Country
Iran (Islamic Republic of)

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+98 11 3336 1700

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Recruitment status
Recruitment complete

Funding source
Vice chancellor for research, Mazandaran University of Medical Sciences

Expected recruitment start date
2016-02-18, 1394/11/29

Expected recruitment end date
2017-02-18, 1395/11/30

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title

Comparison Dopamine and Nor-epinephrine on End tidal carbon dioxide pressure in patients with septic shock

Public title
End tidal carbon dioxide pressure in patients with septic shock
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Patients with septic shock conditions
Exclusion criteria:
patients under 18 years patients more than 75 year Those who received more than 4 hours vasopressor drugs brain death Those with severe cardiac arrhythmia Traumatic patient Brain death
Age
From **18 years** old to **75 years** old
Gender
Both

Phase
3
Groups that have been masked

- Participant
- Care provider
- Outcome assessor

Sample size
Target sample size: **138**
Randomization (investigator's opinion)
Randomized
Randomization description
Simple randomization Patients were divided into two groups and randomly assigned to each of the two groups. The drugs in each group were of the same size and shape, each of these numbers was coded and sealed in a seal envelope.
Blinding (investigator's opinion)
Double blinded
Blinding description
Drugs in a similar container in an opaque bag numbered and the prescribing physician and nurse practitioner were unaware.
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
کمیته اخلاق دانشگاه علوم پزشکی مازندران
Street address
Mazandaran University of Medical Sciences, Jooybar treeway, Imam Square
City
Sari
Province
Mazandaran
Postal code
4815724971
Approval date
2016-07-17, 1395/04/27
Ethics committee reference number
IR.MAZUMS.REC.95.1547

Health conditions studied

1

Description of health condition studied
Septic Shock
ICD-10 code
A41.9
ICD-10 code description
Septicaemia, unspecified, Septic Shock

Primary outcomes

1

Description
Blood pressure
Timepoint
Before intervention, 30 minutes after intervention, 120 minutes after intervention
Method of measurement
mmhg, manometer

2

Description
End Tidal Carbon Dioxide Pressure
Timepoint
Before intervention, 30 minutes after intervention, 120 minutes after intervention
Method of measurement
mmhg, capnograph

Secondary outcomes

1

Description
Heart Rate
Timepoint
Before intervention, 30 minutes after intervention, 120 minutes after intervention
Method of measurement
number per minutes

2

Description
Oxygen Saturation
Timepoint

Before intervention, 30 minutes after intervention, 120 minutes after intervention

Method of measurement

Puls oxymeter

3

Description

Carbon Dioxide Pressure

Timepoint

Before intervention, 30 minutes after intervention, 120 minutes after intervention

Method of measurement

Blood gas

4

Description

Oxygen Pressure

Timepoint

Before intervention, 30 minutes after intervention, 120 minutes after intervention

Method of measurement

Blood gas

Intervention groups

1

Description

Amp Neurepinephrine, 0.5 micro gram/kilogram/minutes, For 2 hours

Category

Treatment - Drugs

2

Description

Amp Dopamine, 5microgram/kilogram/minutes, For 2 hours

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Vice chancellor for research, Mazandaran University of Medical Sciences

Full name of responsible person

Ahmadali Enayati

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Sponsors / Funding sources

1

Sponsor

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Sari University of Medical Sciences

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

Mazandaran University of Medical Sciences

Full name of responsible person

Hamed Aminiahidashti

Position

Assistant Professor

Latest degree

Specialist

Other areas of specialty/work

Emergency Medicine

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
Yes - There is a plan to make this available
Title and more details about the data/document
All potential data is shared after unidentifiable people
When the data will become available and for how long
It has started in 2016
To whom data/document is available
Academic researchers
Under which criteria data/document could be used
All data analysis and actions are coordinated and informed by the project manager
From where data/document is obtainable
Project Officer - Research Deputy of Mazandaran University of Medical Sciences
What processes are involved for a request to access data/document
Written Request to Research Deputy of Mazandaran University of Medical Sciences
Comments