

Clinical Trial Protocol

Iranian Registry of Clinical Trials

06 Jul 2026

Bronchodilator Effect of B-Type Natriuretic Peptide in Acute Asthma Attack Patients (Randomized Controlled Trial Phase I & II)

Protocol summary

Summary

Objectives: Analysis of infusion of BNP in Acute Asthma Exacerbation Design, setting and conduct: In this Clinical Trial Study that is a pilot study and will be done on 40 patients in case and control groups, we'll give BNP in addition to standard treatment to the case group and so the control group will receive standard treatment Major Inclusion and Exclusion criteria: Age above 18 years old; Clinically or Para-clinically Asthma History include and History of Cardiovascular Diseases; History of COPD; History of other pulmonary diseases; History of Smoking more than 10 years; Pregnant women; History of hypersensitivity to the BNP; Systolic Blood Pressure less than 100 mmHg exclude Intervention: BNP infusion to the Case group main outcome measures: Peak Flow Metery parameters will be assessed in two groups

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015022215446N2**

Registration date: **2015-10-07, 1394/07/15**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2015-10-07, 1394/07/15

Registrant information

Name

Hassan Motamed

Name of organization / entity

Emergency Department , Ahvaz Jundishapour
University of Medical Sciences , Ahvaz , Iran

Country

Iran (Islamic Republic of)

Phone

+98 61 3374 3079

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motamed-h@ajums.ac.ir

Recruitment status

Recruitment complete

Funding source

Ahvaz University of Medical Sciences

Expected recruitment start date

2015-05-22, 1394/03/01

Expected recruitment end date

2016-01-21, 1394/11/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Bronchodilator Effect of B-Type Natriuretic Peptide in Acute Asthma Attack Patients (Randomized Controlled Trial Phase I & II)

Public title

Effect of infusion of B-type Natriuretic Peptide in Acute Exacerbation of Asthma

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion Criteria: Acute Asthma Attack with: Age above 18 years old; Clinically or Para-clinically Asthma History
Exclusion Criteria: History of Cardiovascular Diseases; History of COPD; History of other pulmonary diseases; History of Smoking more than 10 years; Pregnant women; History of hypersensitivity to the BNP; Systolic Blood Pressure less than 100 mmHg

Age

From **18 years** old to **80 years** old

Gender

Both

Phase

1-2

Groups that have been masked

No information

Sample size

Target sample size: 40

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Method of closed envelopes that randomly puts the patient in one of intervention or control groups will be used.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Ahvaz University of Medical Sciences

Street address

Research Assistant, Next to central Building, Ahvaz Jundishapur University of Medical Sciences, University town, Ahvaz

City

Ahvaz

Postal code

Approval date

2015-04-29, 1394/02/09

Ethics committee reference number

IR.AJUMS.REC.1394.234

Health conditions studied

1

Description of health condition studied

Acute Exacerbation of Asthma

ICD-10 code

J45

ICD-10 code description

Asthma

Primary outcomes

1

Description

Forced Expiratory Volume in First Second (FEV1)

Timepoint

Before intervention, 30 minutes after intervention, 60 minutes after intervention, 90 minutes after intervention

Method of measurement

Milliliter with use of Peak Flow Meter

2

Description

Peak Expiratory Flow Rate (PEFR)

Timepoint

Before intervention, 30 minutes after intervention, 60 minutes after intervention, 90 minutes after intervention

Method of measurement

Milliliter with use of Peak Flow Meter

Secondary outcomes

1

Description

Blood Pressure

Timepoint

Before Intervention

Method of measurement

Millimeter of Hg

Intervention groups

1

Description

Intervention Group: Salbutamol 2.5mg each 20 minutes via nebulizer Atrovent 2.5mg each 20 minutes via nebulizer Prednisolone 50mg one time by mouth MgSO4 2gr one time IV infusion in 20 minutes BNP 2mcg per kilogram IV Bolus BNP 0.01mcg per kilogram IV Infusion in first 30 minutes BNP 0.02mcg per kilogram IV Infusion in second 30 minutes BNP 0.03mcg per kilogram IV Infusion in third 30 minutes

Category

Treatment - Drugs

2

Description

Control Group: Salbutamol 2.5mg each 20 minutes with nebulizer Atrovent 2.5mg each 20 minutes with nebulizer Prednisolone 50mg by mouth one time MgSO4 2g intravenous infusion in 20 minutes

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Ahvaz Imam Khomeini Hospital

Full name of responsible person

Dr. Hassan Motamed

Street address

Imam Khomeini Hospital, 24metri Street, Ahvaz

City

Ahvaz

2**Recruitment center****Name of recruitment center**

Ahvaz Golestan Hospital

Full name of responsible person

Dr. Hassan Motamed

Street address

Imam Khomeini Hospital, 24metri Street, Ahvaz

City

Ahvaz

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Vice challencor for reasearch of Ahvaz Jundishapur University of Medical Sciences

Full name of responsible person

Dr. Nader Saki

Street address

Vice chancellor for research, Ahvaz Jundishapur University of Medical Sciences

City

Ahvaz

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Vice challencor for reasearch of Ahvaz Jundishapur 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**

Ahvaz University of Medical Sciences

Full name of responsible person

Dr Hassan Motamed

Position

Emergency medicine assistant professor

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Web page address

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