

Clinical Trial Protocol

Iranian Registry of Clinical Trials

05 Sep 2026

Effect of Vitamin C on adrenal suppression following etomidate for rapid sequence induction in trauma patients

Protocol summary

Study aim

Effect of Vitamin C on adrenal suppression following etomidate for rapid sequence induction in trauma patients

Design

Phase 2, randomized, parallel clinical trial. Randomization will be done by using randomization program of WWW.randomization.com website. Sample size will be 30 samples in each group.

Settings and conduct

Traumatic patients who need airway management by reapid sequence induction / intubation and admit in Imam Reza hospital, Tabriz, will randomly divide in 2 groups. Prior to intubation blood serum cortisol level will be checked in two groups. Patients in control group will receive 1.5 Mg/Kg lidocain, 2 micg/Kg fentanyl, 0.2 Mg/Kg etomidate and 1.5 Mg/Kg succinylcholin. Intervention group will receive same drugs in same manner but 1 gram of intravenous vitamin C will be injected prior to etomidate injection. Serum cortisol level will be checked 3 hours after intubation in both groups.

Participants/Inclusion and exclusion criteria

Traumatic patients older than 18 year old who need airway management by using rapid sequence induction/ intubation will included in study. Corticosteroid users, pregnant patients and patients with a history of endocrine, renal or hepatic disorders will be excluded.

Intervention groups

In control group patients will be intubated by using lidocain, fentanyl, etomidate and succinylcholin. In intervention group same drugs will used for induction of sedation but patients will receive 1 gram of intravenous Vitamin C prior to etomidate injection.

Main outcome variables

Serum cortisol level three hours after intubation

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20090923002496N11**

Registration date: **2019-04-19, 1398/01/30**

Registration timing: **prospective**

Last update: **2019-04-19, 1398/01/30**

Update count: **0**

Registration date

2019-04-19, 1398/01/30

Registrant information

Name

Hassan Soleimanpour

Name of organization / entity

Tabriz University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 41 1329 1286

Email address

soleimanpourh@tbzmed.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-05-22, 1398/03/01

Expected recruitment end date

2019-11-22, 1398/09/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of Vitamin C on adrenal suppression following etomidate for rapid sequence induction in trauma

patients

Public title
Effect of Vitamin C on adrenal suppression following etomidate for rapid sequence induction in trauma patients

Purpose
Prevention

Inclusion/Exclusion criteria
Inclusion criteria:
Traumatic patients who need rapid sequence induction/intubation More than 18 year old
Exclusion criteria:
Corticosteroids users Pregnant patients history of endocrine disorders history of hepatic disorders history of renal disorders

Age
From **18 years** old

Gender
Both

Phase
2

Groups that have been masked
No information

Sample size
Target sample size: **30**

Randomization (investigator's opinion)
Randomized

Randomization description
A simple method randomization with a unit of individuals will be used. randomization will be done by using randomization program of WWW.randomization.com website.

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

ethic committee of Research Vice chancellor of Tabriz University of Medical Sciences

Street address

Research Vice chancellor of Tabriz University of Medical Sciences ,Tabriz University of Medical Sciences, Daneshgah Street, Tabriz-51664, I.R IRAN

City

Tabriz

Province

East Azarbaijan

Postal code

5166614776

Approval date

2019-02-04, 1397/11/15

Ethics committee reference number

IR.TBZMED.REC.1397.925

Health conditions studied

1

Description of health condition studied

Rapid sequence induction/ intubation

ICD-10 code

ICD-10 code description

2

Description of health condition studied

Adrenal suppression

ICD-10 code

E27.3

ICD-10 code description

Drug-induced adrenocortical insufficiency

Primary outcomes

1

Description

Blood cortisol level

Timepoint

Prior to and three hours after to etomidate injection

Method of measurement

Blood serum cortisol level measurement as nano-moles / liter

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: A single dose of one gram of intravenous Vitamin C will be used. The drug we will use in this study is made by Sobhan pharmaceutical Co. Iran.

Category

Treatment - Drugs

2

Description

Control group: Will receive 5CC of normal saline ass placebo.

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Imam Reza hospital

Full name of responsible person

Hassan Soleimanpour

Street address

Emergency Medicine Department, Tabriz University of Medical Sciences, Daneshgah Street, Tabriz-51664, I.R IRAN

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Tabriz University of Medical Sciences

Full name of responsible person

Dr Abolghasem Jouyban

Street address

Research Vice chancellor of Tabriz University of Medical Sciences ,Tabriz University of Medical Sciences, Daneshgah Street, Tabriz-51664, I.R IRAN.

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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

Tabriz 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**

Tabriz University of Medical Sciences

Full name of responsible person

Hassan Soleimanpour

Position

Professor

Latest degree

Specialist

Other areas of specialty/work

Anesthesiology

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Person responsible for scientific inquiries

Contact**Name of organization / entity**

Tabriz University of Medical Sciences

Full name of responsible person

Hassan Soleimanpour

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Professor

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Person responsible for updating data

Contact

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Full name of responsible person

Hassan Soleimanpour

Position

professor

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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 collected de identified IPD

When the data will become available and for how long

Data will be available in september 2020.

To whom data/document is available

Data will be available for all interested researchers

Under which criteria data/document could be used

Data will be available for use in other studies.

researchers can ask for data of this study by sending email to dr. Hassan Soleimanpour

From where data/document is obtainable

Dr. Hassan Soleinampour soleimanpourh@tbzmed.ac.ir

What processes are involved for a request to access data/document

In two weeks after sending data request email, they can receive data

Comments