

Clinical Trial Protocol

Iranian Registry of Clinical Trials

30 May 2026

Comparison of the effect of Atracurium and Methocarbamol on preventing of muscle fasciculation induced by Succinylcholine

Protocol summary

Summary

Fasciculation is a minor adverse effect of succinylcholine, but it may be an unpleasant experience for patient. The aim of this study was to compare the use of atracurium and methocarbamol on decreasing the occurrence and severity of muscle fasciculation induced by succinylcholine. Methods: Fifty-eight adults I or II ASA patients whom were hospitalized for elective surgery were randomly assigned in to two groups: (n= 29). In the first group two to three minutes before succinylcholine (shots made in Iran Bahestan drugs) Methocarbamol (shots made in Iran Aboureihan) a dose of one gram was injected intravenously and in the second group two to three minutes before the injection of succinylcholine (shots made in Iran Caspian intravenously) at a rate of one-tenth relaxant (I-D -95) fasciculation drugs were used. Fasciculation were observed and evaluated in both two groups. (Fasciculation was classified from grade 3-0). Induction of anesthesia in all patients with intravenous injection of thiopental sodium (shots made in Iran Aboureihan) was performed at a rate of 5-3 mg kg.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014061518099N1**

Registration date: **2016-05-26, 1395/03/06**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2016-05-26, 1395/03/06

Registrant information

Name

Gholamreza Shabani

Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor For Research And Technology Of Shahrekord University Of Medical Sciences

Expected recruitment start date

2012-03-24, 1391/01/05

Expected recruitment end date

2013-01-08, 1391/10/19

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of Atracurium and Methocarbamol on preventing of muscle fasciculation induced by Succinylcholine

Public title

The effect of Methocarbamol on preventing of muscle fasciculation

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria : ASA physical status I and II; not be addicted to opiate; age between 18 to 60 years.

Exclusion criteria : spinal injuries; hepatic or renal failure; cardiac ischemia; pulmonary; metabolic diseases and pregnancy

Age

From **17 years** old to **59 years** old

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **58**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Patients and researchers investigating fasciculation are unaware of the group assigning.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Shahrekord University Of Medical Sciences

Street address

Kashani Blvd, Shahrekord, Medical Sciences
University Of

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Shahrekord

Postal code

8815717311

Approval date

2010-08-15, 1389/05/24

Ethics committee reference number

89-8-5

Health conditions studied

1

Description of health condition studied

The relation between the effect of Methocarbamol and neuromuscular in preventing of fasciculation induced by succinylcholine

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

muscle fasciculation

Timepoint

right after injection of succinylcholine

Method of measurement

(0-4 score system) scale. observational

Secondary outcomes

empty

Intervention groups

1

Description

Fifty-eight adults ASA I or II patients whom were hospitalized for elective surgery were randomly assigned in to two groups: group "A" (n= 29) whom were received succinylcholine 1 mg/kg body weight intravenously followed by methocarbamol 1g. and patients in group "B" (n= 29) whom were received succinylcholine 1 mg/kg body weight intravenously followed by 0.1 effective dose of atracorium . Anesthesia was induced in all patients with thiopental sodium 3-5 mg/kg .

Category

Prevention

2

Description

In the first group before succinylcholine one mg kg Methocarbamol was given intravenously in all patients. Anesthetic thiopental in the three to five milligrams per kg was done for all patients.

Category

Treatment - Drugs

3

Description

In the second group before succinylcholine one mg kg of atracurium (as much as one-tenth the dose of the drug relaxant) was used intravenously. Anesthesia was induced in all patients with intravenous injection of sodium thiopental at a dose of three to five mg kg .

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Ayatollah Kashani Hospital

Full name of responsible person

Gholamreza Shabanian

Street address

Ayatollah Kashani Hospital, Parastar Street

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

Deputy Of Research And Technology, Shahrekord
,Medical Sciences University Of

Full name of responsible person

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shahrekord

Grant name

8

Grant code / Reference number

851

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

Yes

Title of funding source

Deputy Of Research And Technology, Shahrekord
,Medical Sciences University Of

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**

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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