

# 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

Shahrekord University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 38 3333 0061

##### Email address

gshabani@skums.ac.ir

##### 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

##### City

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

##### City

## Sponsors / Funding sources

### 1

#### Sponsor

**Name of organization / entity**

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

**Full name of responsible person**

Doctor Mahmood Mobasheri

**Street address**

Kashani Blvd, Shahrekord, Medical Sciences  
University Of

**City**

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**

Shahrekord University Of Medical Sciences

**Full name of responsible person**

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**Position**

Research and Technology Deputy Of

**Other areas of specialty/work**
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## Person responsible for scientific inquiries

#### Contact

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Anesthesiologist

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## Person responsible for updating data

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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*