Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

Comparison the analgesic and side effect of morphine with low dose intravenous ketamine in patient with musculoskeletal trauma injury

Protocol summary

Summary

Objective: Comparison the analgesic and side effect of morphine and intravenous ketamine in patient with musculoskeletal injury. Inclusion criteria: patients in the age range of 18-70 Years, Severe acute musculoskeletal pain between 6-10 VAS Exclusion criteria included : patient refusal addiction SBP<90 GCS<90 presence of cardiac, pulmonary , renal, psychiatric disease Pregnancy or breast feeding allergy to ketamine or morphine, require to CNC block inability to underestand vas concepts The subjects consisted of patients with musculoskeletal trauma injury, referring to the emergency unit. According to statistical analyzez 300 patients are enroled the study. methods: patients are randomly divide into two groups. The group receiving morphine at a dose of 0.1 mg/kg and 3mg/kg are used for every 5 minute and the group receiving IV ketamine at a dose of 0.2 mg/kg. Finally, obtain information (decreasing pain severity and side effect) are evaluated and recorded after 0,30 and 60 second.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015111024979N1**
Registration date: **2015-12-15, 1394/09/24**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2015-12-15, 1394/09/24

Registrant information

Name

Maryam Fattahi

Name of organization / entity

Iran University of Medical Sciences, Medicen Department

Country

Iran (Islamic Republic of)

Phone

+98 86701

Email address

rfateh@muq.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice Chancellor for research of Iran University of Medical Sciences

Expected recruitment start date

2014-06-05, 1393/03/15

Expected recruitment end date

2015-11-22, 1394/09/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison the analgesic and side effect of morphine with low dose intravenous ketamine in patient with musculoskeletal trauma injury

Public title

Comparison efficacy of morphine with low dose intravenous ketamine in patient with musculoskeletal trauma injury

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: patients in the age range of 18-70 Years, Severe acute musculoskeletal pain between 6-10 VAS Exclusion criteria included : patient refusal addiction SBP<90 GCS<90 presence of cardiac, pulmonary , renal,

psychiatric disease Pregnancy or breast feeding allergy to ketamine or morphine, require to CNC block inability to underestand the vas concepts

Age
From **18 years** old to **70 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **300**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics committee of Iran University of Medical Sciences

Street address
Shahid Hemmat freeway, next to Milad tower

City
Tehran

Postal code
1449614535

Approval date
2014-07-06, 1393/04/15

Ethics committee reference number
IR.IUMS,REC.1394.9211307021

Health conditions studied

1

Description of health condition studied
Patients with musculoskeletal truma injury

ICD-10 code
M95-M99

ICD-10 code description
Other disorders of the musculoskeletal system and connective tissue

Primary outcomes

1

Description
Decreasing pain severity

Timepoint
0,30,60 minute after intervention

Method of measurement
Visual Analog Scale

Secondary outcomes

1

Description
Itchy

Timepoint
0,30 60 minet after injection

Method of measurement
Researcher observation or patient discribe

Intervention groups

1

Description
First intervention group: The group receiving IV morphine at a dose of 0.1 mg/kg of body weight

Category
Treatment - Drugs

2

Description
Second intervention:The group receiving IV ketamine at a dose of 0.2 mg/kg of body weight

Category
Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center
Eemergency Unit of Iran University Hospitals

Full name of responsible person
Maryam Fattahi

Street address
Iran University of Medical Sciences

City
Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Vice Chancellor for research of Iran University of

Medical Sciences

Full name of responsible person

Dr Mossavi

Street address

Shahid Hemmat freeway, next to Milad tower

City

Tehran

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Vice Chancellor for research of Iran 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

Iran University of Medical Sciences

Full name of responsible person

Maryam Fattahi

Position

Emergency Resident

Other areas of specialty/work

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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