Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 2026

Effect of Ketamine as Adjuvant in Ultrasound Guided Supraclavicular Brachial Plexus Block

Protocol summary

Summary

Objectives: We conducted this study to assess whether coadministration of ketamine would enhance or prolong local analgesic effect of lidocaine in supraclavicular brachial plexus block for patients undergoing elective upper extremity surgery. Patients with age between 15 and 60 years ; American Society of Anesthesiologists (ASA) classes I - II included and patient with preexisting neuropathy ; hepatic or renal impairment ; allergy to drugs used in this study ; infection at the injection site ; prior surgery in the supraclavicular, infraclavicular or axillary regions ; alcohol or drug abuse ; ; refusal of the patient excluded. Methods: Sixty adult patients undergoing elective surgery of the elbow, forearm, wrist, or hand were randomly allocated in two groups of thirty patients each. Group 1 (ketamine group) received 3 mg/kg lidocaine plus 2 mg/kg ketamine, Group 2 (control group) received 3 mg/kg lidocaine and saline.This randomized, double blinded clinical trial was conducted between November 2012 and November 2013 in the two teaching hospitals (Ayatollah Kashani and Alzahara Hospital) of Isfahan University of Medical Sciences. Outcome measures included onset times and duration of sensory and motor block, pain and satisfaction scores, time to first request for analgesia, total dose of postoperative opioid, and adverse events.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2013091414661N1**
Registration date: **2014-02-20, 1392/12/01**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2014-02-20, 1392/12/01

Registrant information

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Mohammadreza Lashgarinia
Name of organization / entity
Isfahan University of Medical Science
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Recruitment status

Recruitment complete

Funding source

Isfahan University of Medical Science

Expected recruitment start date

2012-11-01, 1391/08/11

Expected recruitment end date

2013-11-01, 1392/08/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of Ketamine as Adjuvant in Ultrasound Guided Supraclavicular Brachial Plexus Block

Public title

Ketamine and post operative pain

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion criteria : Patients with age between 15 and 60 years ; American Society of Anesthesiologists (ASA) classes I - II ; and body mass index (BMI) between 20 and

35 kg/m2. Exclusion criteria : preexisting neuropathy, coagulopathy ; hepatic or renal impairment ; severe pulmonary disease ; allergy to drugs used in this study ; infection at the injection site ; pregnancy or lactation ; prior surgery in the supraclavicular, infraclavicular or axillary regions ; alcohol or drug abuse ; duration of operation more than 120 min or less than 30 min ; refusal of the patient.

Age
From **15 years** old to **60 years** old

Gender
Both

Phase
3

Groups that have been masked
No information

Sample size
Target sample size: **60**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Double blinded

Blinding description

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Isfahan University of Medical Science

Street address
Isfahan.Iran

City
Isfahan

Postal code

Approval date
2012-07-10, 1391/04/20

Ethics committee reference number
291195

Health conditions studied

1

Description of health condition studied
regional anesthesia

ICD-10 code
Y48.3

ICD-10 code description
Local anaesthetics

Primary outcomes

1

Description
Post operative pain

Timepoint
the first 24hours post operatively

Method of measurement
VAS

Secondary outcomes

1

Description
onset times and duration of sensory and motor block

Timepoint
intra operative

Method of measurement
by chornometer

Intervention groups

1

Description
Group 1(ketamine group) received 3 mg/kg lidocaine and 2 mg/kg ketamine.

Category
Treatment - Other

2

Description
Group 2 (control group) received 3 mg/kg lidocaine and 0.9% sodium chloride in the same volume of ketamine 2% if was used.

Category
Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center
Alzahra and Kashani hospitals

Full name of responsible person
Dr.Azim Honarmand

Street address
Isfahan University of Medical Science

City
Isfahan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Isfahan University of Medical Science

Full name of responsible person

Dr.Peyman Adibi

Street address

Isfahan University of Medical Science,VCR office

City

Isfahan

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Isfahan University of Medical Science

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