

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 May 2026

Comparison of analgesia due to nitroglycerine & meperidine added to lidocaine to lidocaine and meperidine in the IV regional anesthesia

Protocol summary

Summary

The purpose of this clinical trial is to compare analgesia due to nitroglycerin and meperidine added to lidocaine to lidocaine and meperidine in the IV regional anesthesia. A total of 50 patients aged 18-60 years old who are candidates for hand and wrist surgery are randomly assigned into one of the intervention groups. After BP and HR measurement and sedating by 1microg/kg IV fentanyl and 1.5 mg Midazolam double cough tournique is fastened around the arm. Blood of the organ is discharged by smarch band and proximal cough is inflated.150mmHg more than systolic Blood Pressure then the smarch band is unfastened. 200mg lidocaine & 50 mg Meperidine (totally40cc) is infused during 90 seconds in the case group & 200mg lidocaine , 50mg meperidine & 200 microg Nitroglycerin is infused in the control group . After feeling pain, Proximal tournique is difelated and distal tournique is inflated. 150mmHg more than systolic BP. BP & HR & VAS (Visual analog scaling) (Painless 0-Very painful 10) is checked 1, 5,10,20,30 mins after tournique inflation & 1,5,10 mins & 2 hours after tournique defilation. During the surgery 1-3microg/kg fentanyl is injected if there was a pain & if the pain was not controlled General Anesthesia is considered. The patient is asked about the surgical pain and the pain caused by Tournique and the end of the surgery. The quality of painlessness is divided in 3 groups: excellent (Painless), Good (Little pain & no need to infuse fentanyl), intermediate (sever pain which relieves by fentanyl),Bad (Patient who doesn't tolerate IV Local Anesthesia). The period of time from operating the tournique until 2 hours after asking for an analgesic is considered as the onset of the pain.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201012254923N2**

Registration date: **2011-11-07, 1390/08/16**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2011-11-07, 1390/08/16

Registrant information

Name

Bahman Hasannasab

Name of organization / entity

Babol University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Vice-Chancellor of Research, Babol University of Medical Sciences

Expected recruitment start date

2009-11-22, 1388/09/01

Expected recruitment end date

2010-11-22, 1389/09/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of analgesia due to nitroglycerine & meperidine added to lidocaine to lidocaine and meperidine in the IV regional anesthesia

Public title

Comparison of analgesia due to nitroglycerine & meperidine added to lidocaine to lidocaine and meperidine in the IV regional anesthesia

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: age 18-60 year old, candidate for hand and wrist surgery Exclusion criteria: history of hypertension, Diabetes, Convulsion, Sensitivity to general anesthetics, Dependency on narcotics

Age

From **18 years** old to **60 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **50**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Babol University of Medical Sciences

Street address

Daneshgah Sq., Ganjafrooz St., Babol

City

Babol

Postal code

Approval date

2009-07-07, 1388/04/16

Ethics committee reference number

3861/30/پ/ژ

Health conditions studied

1

Description of health condition studied

Injuries to the wrist and hand

ICD-10 code

S60, S61,

ICD-10 code description

Superficial injury of wrist and hand

2

Description of health condition studied

local anaesthetics

ICD-10 code

Y48.3

ICD-10 code description

Local anaesthetics

Primary outcomes

1

Description

analgesia

Timepoint

1, 5, 10, 20, 30 mints after tornique inflation & 1, 5, 10 mints & 2 hours after unfastening the tornique

Method of measurement

Visual Analogue Scale - Visual -questionnaire

Secondary outcomes

1

Description

Blood Pressure

Timepoint

1, 5, 10, 20, 30 mints after tornique inflation & 1, 5, 10 mints & 2 hours after unfastening the tornique

Method of measurement

BP Cuff

2

Description

Heart Rate

Timepoint

1, 5, 10, 20, 30 mints after tornique inflation & 1, 5, 10 mints & 2 hours after unfastening the tornique

Method of measurement

Pulse Oximeter - ECG

Intervention groups

1

Description

Intervention group: 200mg Lidocaine, 50mg Meperidine & 200 microgram TNG (Totally 40 cc) is injected IV in Hand

Category

Treatment - Drugs

2

Description

Control group: 200mg Lidocaine, 50mg Meperidine

(Totally 40 cc) is injected IV in Hand

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Shahid Beheshti Hospital

Full name of responsible person

Dr Bahman Hasannasab

Street address

Sargurd Ghasemi St -Babol

City

Babol

2

Recruitment center

Name of recruitment center

Shahid Yahyanejad Hospital

Full name of responsible person

Dr Bahman Hasannasab

Street address

City

Babol

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Babol University of Medical Sciences

Full name of responsible person

Dr Bahman Hasannasab

Street address

Anesthesiology Department -Ayatollah Ruhani Hospital

City

Babol

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Babol 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

Person responsible for scientific inquiries

Contact

Name of organization / entity

Babol University Of Medical Sciences

Full name of responsible person

Dr Bahman Hasannasab

Position

Assistant Professor Of Anesthesiology

Other areas of specialty/work

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Email

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Web page address

Person responsible for updating data

Contact

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