

Clinical Trial Protocol

Iranian Registry of Clinical Trials

13 Jun 2026

Evaluating the efficacy of Ketorolac as an adjunct to the Bier Block to control post operative pain following traumatic forearm surgery

Protocol summary

Summary

One of the issues of concern to anesthesiologists is to control pain after surgery. This is important especially in orthopedic surgery. One of the appropriate methods to pain control is Biers block local anesthesia. In the course of time, various drugs were applied for this purpose such as Lidocaine. Ketorolac is the only venous NSAID available in Iran which has FDA approval. This drug has been used in some traumatic surgeries for nerve block but with different results. This study is to evaluate the efficacy of Ketorolac to control pain in patients undergoing surgeries due to fractures of forearm. Patients are categorized to a control group for whom nerve block is done with Lidocaine and treatment group undergoing nerve block with Lidocaine and Ketorolac. Onset and duration of analgesia will be compared between the two groups. Pain will be measured on the basis of "Numeric Pain Intensity Scale" in specific intervals and each patient will be given a score to be used in comparison between the two groups.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014042115587N5**

Registration date: **2014-07-05, 1393/04/14**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-07-05, 1393/04/14

Registrant information

Name

Nasrin Naseri

Name of organization / entity

Shiraz University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor for research, Shiraz University of Medical Sciences

Expected recruitment start date

2013-12-22, 1392/10/01

Expected recruitment end date

2014-03-20, 1392/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluating the efficacy of Ketorolac as an adjunct to the Bier Block to control post operative pain following traumatic forearm surgery

Public title

Efficacy of ketorolac as an adjunct to the Bier Block to control post operative pain following traumatic forearm surgery

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria of the study: 15 > age > 60; Patients who undergo orthopedic surgery because of traumatic forearm fracture; Duration of surgery less than 90 minutes. Exclusion criteria: History of chronic analgesics consumption, for example Acetaminophen; History of

drug abuse; Any signs of upper limb infection; Upper limb vascular disease; History of the severe psychiatric disease; Allergy to lidocaine or Ktorolac; Pregnancy; Renal Diseases

Age

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

Gender

Both

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **80**

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

Shiraz University of Medical Sciences

Street address

Shiraz University of Medical Sciences, Shiraz, Iran

City

Shiraz

Postal code

-

Approval date

2013-09-07, 1392/06/16

Ethics committee reference number

90-01-01-4203

Health conditions studied

1

Description of health condition studied

fracture of forearm

ICD-10 code

S52

ICD-10 code description

fracture of forearm

Primary outcomes

1

Description

The pain score in each group

Timepoint

-Every 15 min in the first hour then every 2 hr in the first day

Method of measurement

Numeric pain intensity scale (VAS Scoring system)

Secondary outcomes

1

Description

Narcotic consumption in the first 24 hours

Timepoint

24 hours after surgery.

Method of measurement

mg

Intervention groups

1

Description

Intervention group: Ketorolac and Lidocain will be injected.

Category

Treatment - Drugs

2

Description

Control Group: Lidocain will be injected.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Chamran hospital , Shiraz, Iran

Full name of responsible person

Mohammad Rahmani, MD

Street address

Chamran hospital , Chamran Boulevard, Shiraz, Iran

City

Shiraz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shiraz University of Medical Sciences

Full name of responsible person

Seyed Basir Hashemi, MD

Street address

Shiraz University of Medical Sciences, Shiraz, Iran

City

Shiraz

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Shiraz 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**

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Full name of responsible person

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Web page address**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*