

Clinical Trial Protocol

Iranian Registry of Clinical Trials

07 Jun 2026

comparison of the effect of low level laser and lidocaine with lidocaine alone on tourniquet pain during surgery of distal radius fracture with intravenous regional block

Protocol summary

Summary

The aim of this study is evaluation of the effect of low level laser on reducing tourniquet pain during surgery of distal radius fracture with intravenous regional block. In this prospective double blind randomized study 48 patient were divided in intervention and control group . Inclusion criteria : ASA class I & II ; 18-50 years old . Exclusion criteria : raynaud disease ; scleroderma ; sickle cell anemia ; malignancy ; photo sensitivity ; convulsion ; pregnancy . Intravenous regional block with lidocaine is done in both groups equally. , in intervention group 24 patient received infra red laser radiation after tourniquet inflation and in control group 24 patient received off laser after tourniquet inflation .Tourniquet pain was measured at 10 , 20 , 30 , 40 and 50 minutes after tourniquet inflation by Visual Analogue Scale . Postoperative pain was measured at 2 , 4 , 8 , 12 and 24 hour after tourniquet deflation.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2012081810509N3**
Registration date: **2012-12-14, 1391/09/24**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2012-12-14, 1391/09/24

Registrant information

Name

Sholeh Nesioonpour

Name of organization / entity

Ahvaz Jundishapur Medical University

Country

Iran (Islamic Republic of)

Phone

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Email address

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Recruitment status

Recruitment complete

Funding source

Ahvaz Jundishapur University of Medical Sciences

Expected recruitment start date

2012-04-24, 1391/02/05

Expected recruitment end date

2012-11-25, 1391/09/05

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

comparison of the effect of low level laser and lidocaine with lidocaine alone on tourniquet pain during surgery of distal radius fracture with intravenous regional block

Public title

Effect of low level laser on torniquet pain in intravenous regional block

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria : ASA class I & II ; 18-50 years old
Exclusion criteria : raynaud disease ; scleroderma ; sickle cell anemia ; malignancy ; photo sensitivity ; convulsion ; pregnancy

Age

From **18 years** old to **50 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **48**

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**

Ahvaz Jundishapur University of Medical science

Street address

Shahrak Daneshgah , Golestan

City

Ahvaz

Postal code**Approval date**

2012-04-21, 1391/02/02

Ethics committee reference number

ETH-441

Health conditions studied**1****Description of health condition studied**

Pain

ICD-10 code

R52.0

ICD-10 code description

Acute Pain

Primary outcomes**1****Description**

Pain

Timepoint

10 , 20 , 30 , 40 , 50 minute after tourniquet inflation

Method of measurement

Visual Analogue Scale

Secondary outcomes**1****Description**

Postoperative Pain

Timepoint

2 , 4 , 8 , 12 , 24 hour after surgery

Method of measurement

Visual Analogue Scale

Intervention groups**1****Description**

In control group patients received off laser after tourniquet inflation

Category

Prevention

2**Description**

In intervention group patients received infra red laser radiation after tourniquet inflation

Category

Prevention

Recruitment centers**1****Recruitment center****Name of recruitment center**

Imam Khomeini Hospital

Full name of responsible person

Dr Sholeh Nesioonpour

Street address

Azadegan Avenue

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Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Ahvaz Jundishapur University of Medical Sciences

Full name of responsible person

Dr Mostafa Fegghi

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

organization/entity?

Yes

Title of funding source

Ahvaz Jundishapur 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**

School of Medicine , Ahvaz Jundishapur of Medical Science

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Assistant Professor of Anesthesia

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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