

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Jul 2026

Evaluation of the effects of adductor canal block on hemodynamic variables and severity of pain after total knee arthroplasty under spinal anesthesia in comparison to control group

Protocol summary

Study aim

Improving pain control after total knee arthroplasty

Design

a clinical trial with control group, parallel groups, double-blinded, randomized

Settings and conduct

This study will perform on TKA candidates at Ayatollah Kashani Hospital in Isfahan. patients will be divided randomly into two groups by using random allocation software and patients and physicians were unaware of allocating individuals to groups. TKA candidates take Marcaine or N/S in control and study group respectively for the adductor canal block under the ultrasound guide.

Participants/Inclusion and exclusion criteria

Inclusion criteria: TKA candidates, age range 18-90 years old, ASA, non-consumption of anti-coagulant, consent of patient for participation in the study and lack of spinal block contraindication. Exclusion criteria: cancelling operation for any reason, changing operation technique and anesthesia and not measuring variables up to the end of the study

Intervention groups

Prescription of 12.5 to 15 mg bupivacaine in adductor canal

Main outcome variables

Postoperative pain

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20140129016415N8**

Registration date: **2019-12-22, 1398/10/01**

Registration timing: **registered_while_recruiting**

Last update: **2019-12-22, 1398/10/01**

Update count: **0**

Registration date

2019-12-22, 1398/10/01

Registrant information

Name

Mohammad Golparvar

Name of organization / entity

Isfahan University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 31 3220 1750

Email address

golparvar@med.mui.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-11-22, 1398/09/01

Expected recruitment end date

2020-03-19, 1398/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of the effects of adductor canal block on hemodynamic variables and severity of pain after total knee arthroplasty under spinal anesthesia in comparison to control group

Public title

Effects of adductor canal block in post surgical pain knee arthroplasty

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Total knee arthroplasty candidates ASA I and II non consumption of anti-coagulants no contraindication for spinal anesthesia

Exclusion criteria:

Changing operation technique and anesthesia

Age

From **18 years** old to **90 years** old

Gender

Both

Phase

2

Groups that have been masked

- Participant
- Care provider
- Investigator
- Outcome assessor
- Data analyser

Sample size

Target sample size: **68**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomization by computer-generated random numbers, patients according to the computer-generated random list will divide into the study and control group. (numbers lower than 0.5 in the study group and numbers greater than 0.5 in the control group).

Blinding (investigator's opinion)

Double blinded

Blinding description

The drugs and placebos will prepare in similar syringes and will take codes by a coworker who will not participate in patient selection, care, data collection and analysis. All the participants in patients care, doing the intervention, collecting and analyzing data will be blinded to the content of syringes till the end of the study.

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Isfahan University of Medical Sciences

Street address

No.100, Jahan-nama valley, Babalrahmeh street, Isfahan, Iran

City

Isfahan

Province

Isfahan

Postal code

8136656433

Approval date

2017-11-21, 1396/08/30

Ethics committee reference number

IR.MUI.REC.1396.3.600

Health conditions studied

1

Description of health condition studied

Osteoarthritis of knee

ICD-10 code

M17.9

ICD-10 code description

Osteoarthritis of knee, unspecified

Primary outcomes

1

Description

Post operative pain

Timepoint

6, 12, 24 and 48 hours after surgery

Method of measurement

Visual analogue scale

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: adductor canal block by prescription of 12.5 to 15 mg bupivacaine under sonographic guide.

Category

Treatment - Drugs

2

Description

Control group: injection of 2.5 to 3 ml normal saline in adductor canal under sonographic guide

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Kashani Hospital

Full name of responsible person

Mohammad Golparvar

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Esfahan University of Medical Sciences

Full name of responsible person

Dr Shaghayegh Haghjoo

Street address

No.4 Headquarters building, Isfahan university of
Medical Sciences, hezarjarib Street, Isfahan, Iran

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8174673461

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research@mui.ac.ir

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

Yes

Title of funding source

Esfahan University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Esfahan University of Medical Sciences

Full name of responsible person

Mohammad Golparvar

Position

Professor

Latest degree

Specialist

Other areas of specialty/work

Anesthesiology

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Person responsible for scientific inquiries

Contact

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Person responsible for updating data

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

There is no further information

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available