Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 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
Isfehan
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 songraphic guide
Category
Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center
Kashani Hospital

Full name of responsible person
Mohammad Golparvar

Street address
No.100, Jahan nama valley, Babalrahmeh street, Isfahn, Iran

City
Isfahan

Province
Isfehan

Postal code
8136656433

Phone
+98 31 3220 1750

Email
golparvar@med.mui.ac.ir

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

City
Isfahan

Province
Isfehan

Postal code
8174673461

Phone
+98 31 3668 8138

Email
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

Street address
No.100, Jahan nama valley, Babalrahmeh street, Isfahan, Iran

City
Isfahan

Province
Isfehan

Postal code
8136656433

Phone
+98 31 3220 1750

Email
golparvar@med.mui.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity
Esfahan University of Medical Sciences

Full name of responsible person
Mohammad Golparvar

Position
Professor

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Phone
+98 31 3220 1750

Email
golparvar@med.mui.ac.ir

Person responsible for updating data

Contact

Name of organization / entity
Esfahan University of Medical Sciences

Full name of responsible person
Mohammad Golparvar

Position
Professor
Latest degree
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Anesthesiology
Street address
No.100, Jahan nama valley, Babalrahmeh street, Isfahan, Iran
City
Isfahan
Province
Isfehan
Postal code
813 6656433
Phone
+98 31 3220 1750
Email
golparvar@med.mui.ac.ir

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