Clinical Trial Protocol
Iranian Registry of Clinical Trials

10 Jun 2026

The comparison of the efficacy of ultrasonographic-guided pericapsular block vs fascia iliaca block for controlling pain after intertrochanteric fracture surgery

Protocol summary

Study aim
The comparison of the efficacy of ultrasonographic-guided pericapsular block vs. fascia iliaca block for controlling pain after intertrochanteric fracture surgery

Design
This study is a clinical trial with a control group, double-blind, randomized, on 30 patients using block randomization method.

Settings and conduct
After surgery and transfer of the patient to recovery and lowering the level of spinal anesthesia, to perform precapsular block, first the ultrasound probe is kept in the superior anterior path of the iliac spine and parallel to the inguinal ligament and gently towards the caudal It moves at the same angle. Immediately after the probe reaches the iliac spine inferior anterior, the sono probe is rotated toward the medial so that the upper pubis ramus is visible. In this case, we hold the sono probe fixed. 20cc Ropivacaine 0.25% is injected at this site with a Spinal needle No. 22. In the Iliaca fascia block, under ultrasound guidance , the patient is placed in the supine position, the probe is placed transversely above the inguinal ligament and parallel to it. The needle is inserted laterally into the medial and 20 cc of Ropivacaine 0.25% is injected between the iliac fascia and the iliac muscle. Also, for patients, an intravenous pain control pump containing fentanyl is placed and the request hours are recorded.

Participants/Inclusion and exclusion criteria
Inclusion criteria: Patients 40 to 80 years old, Patients with an anesthesia score of 1 to 3 Exclusion criteria: Candidates for emergency surgery, History of rupivacaine allergy, Liver and kidney problems

Intervention groups
Intervention group: Pericapsular block in patients undergoing intertrochanteric fracture surgery
Comparison group: Ilia fascia block in patients undergoing intertrochanteric fracture surgery

Main outcome variables
Pain, satisfaction, nausea and vomiting

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20141127020112N11**
Registration date: **2021-10-12, 1400/07/20**
Registration timing: **registered_while_recruiting**

Last update: **2021-10-12, 1400/07/20**
Update count: **0**

Registration date
2021-10-12, 1400/07/20

Registrant information

Name
Pooya Derakhshan

Name of organization / entity
Birjand Univesity of Medical Sciences

Country
Iran (Islamic Republic of)

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2021-09-23, 1400/07/01

Expected recruitment end date
2022-03-20, 1400/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The comparison of the efficacy of ultrasonographic-guided pericapsular block vs fascia iliaca block for controlling pain after intertrochanteric fracture surgery

Public title

The effect of pericapsular block vs Iliaca fascia block on pain control after intertrochanteric fracture surgery.

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Patients 40 to 80 years old are candidates for intertrochanteric fracture surgery. Patients with an anesthesia score of 1 to 3

Exclusion criteria:

Candidates for emergency surgery History of rupivacaine allergy Liver and kidney problems

Age

From **40 years** old to **80 years** old

Gender

Both

Phase

3

Groups that have been masked

- Care provider
- Data analyser

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

In this study, we use the block randomization method so that after selecting patients according to the inclusion and exclusion criteria by selecting numbers from the table of random numbers and adapting to the blocks, patients are divided into study groups. To randomize the two treatment methods, we create 4 blocks in six different states, then select a number using the table of numbers, and determine the study groups by matching the numbers with the blocks. For example, if the first digit of our number is 1 to 6, select a block and the division is done, but if, for example, our number is 94071, the digit 9 is not valid and we select the next digit. Here, based on the block 4, we divide patients into groups. 1. TTCC 2. TCTC 3. TCCT 4. CCTT 5. CTCT 6. CTTC

Blinding (investigator's opinion)

Double blinded

Blinding description

In this study, people who are responsible for patient care and analysis of statistical data do not know about the treatment process and study groups, and information is provided to them in groups A and B.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Iran University of Medical Sciences

Street address

Iran University of Medical Sciences., Hemmat Highway., Next to Milad Tower., Tehran Town

City

Tehran

Province

Tehran

Postal code

8874113911

Approval date

2021-04-21, 1400/02/01

Ethics committee reference number

IR.IUMS.FMD.REC.1400.067

Health conditions studied

1

Description of health condition studied

intertrochanteric fracture

ICD-10 code

S72.14

ICD-10 code description

Intertrochanteric fracture of femur

Primary outcomes

1

Description

Pain

Timepoint

After surgery

Method of measurement

Visual Analogue Scale

2

Description

Satisfaction

Timepoint

After surgery

Method of measurement

Check list

Secondary outcomes

1

Description
Nausea and Vomiting
Timepoint
After surgery
Method of measurement
Check list

Intervention groups

1

Description
Intervention group 1: After surgery and transfer of the patient to recovery and lowering the level of spinal anesthesia, to perform precapsular block, first the ultrasound probe is kept in the superior anterior path of the iliac spine and parallel to the inguinal ligament and gently towards the caudal It moves at the same angle. Immediately after the probe reaches the iliac spine inferior anterior, the sono probe is rotated toward the medial so that the upper pubis ramus is visible. In this case, we hold the sono probe fixed. 20cc Ropivacaine 0.25% (Molteni Farmaceutici)is injected at this site with a Spinal needle No. 22.
Category
Treatment - Other

2

Description
Intervention group 2 : In the Iliaca fascia block, under ultrasound guidance , the patient is placed in the supine position, the probe is placed transversely above the inguinal ligament and parallel to it. The needle is inserted laterally into the medial and 20 cc of Ropivacaine 0.25% (Molteni Farmaceutici) is injected between the iliac fascia and the iliac muscle.
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Rasoul Akram Hospital
Full name of responsible person
Pooya Derakhshan
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No 18, Yas St., Ghafari Ave.
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
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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
Iran 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
Iran University of Medical Sciences
Full name of responsible person
Pooya Derakhshan
Position
Associate professor
Latest degree
Specialist
Other areas of specialty/work
Anesthesiology
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available
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