

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 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 pericapsular 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 ropivacaine allergy, Liver and kidney problems

Intervention groups

Intervention group: Pericapsular block in patients undergoing intertrochanteric fracture surgery
Comparison group: Iliac 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 University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 56 3234 1410

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pooya_derakhshan@bums.ac.ir

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 ropivacaine 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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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

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Full name of responsible person

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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 scientific inquiries

Contact

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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