

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Comparative study of Quadratus lumborum and Fascin illiaca nerve blocks on intraoperative narcotic use and postoperative analgesia criteria in acetabulum fracture surgeries by Stoppa method

#### Protocol summary

##### Study aim

Comparison of Quadratus and Fascin illiaca nerve blocks on the amount of drug used during surgery and postoperative analgesia criteria in acetabular fracture surgeries by Stoppa method

##### Design

Clinical trial with parallel groups, non-randomized, on 40 patients

##### Settings and conduct

The present study was a clinical trial without blinding. After obtaining written consent, patients are transferred to a block room to perform a nerve block. After obtaining a suitable venous line and receiving a crystalloid product, and during hemodynamic monitoring and oxygen administration through a pink mask, as well as receiving fentanyl and midazolam.

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: age 20 to 75 years, ASA class I and II, acetabular fracture, elective surgery by Stoppa method, insensitivity to anesthetic drugs, no psychiatric illness, no drug addiction, no fracture with trauma, weight Less than 85 kg

##### Intervention groups

Patients of Fascialiaca block group (FIB): A high frequency linear probe (10-25 MHz) of ultrasound device is used which is placed horizontally in the inguinal area and in-plane method with B Braun needle at a rate of 3 ml / kg 0. and a maximum of 30 ml of 0.5% ropivacaine is injected with direct vision between the iliac fascia and the iliopsoas muscle. Patients in the QL group: Curanasus lumborum 1 (QL1) or lateral Quartus lumborum block is used with the help of Needle 22 Braun ropivacaine 0.5% at a rate of 0.3 ml / g and up to 30 ml at the lateral termination of the abdominis transverse muscle. And is done with precise hyperdissection.

##### Main outcome variables

Pain, blood pressure, heart rate, morphine intake after

surgery, fentanyl intake during surgery

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20191114045435N1**

Registration date: **2021-02-17, 1399/11/29**

Registration timing: **registered\_while\_recruiting**

Last update: **2021-02-17, 1399/11/29**

Update count: **0**

##### Registration date

2021-02-17, 1399/11/29

##### Registrant information

##### Name

Sara Shayegh

##### Name of organization / entity

##### Country

Iran (Islamic Republic of)

##### Phone

+98 21 2290 8383

##### Email address

shayegh@sbmu.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2020-08-22, 1399/06/01

##### Expected recruitment end date

2021-03-20, 1399/12/30

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

**Trial completion date**

empty

**Scientific title**

Comparative study of Quadratus lumborum and Fascin iliaca nerve blocks on intraoperative narcotic use and postoperative analgesia criteria in acetabulum fracture surgeries by Stoppa method

**Public title**

Comparison of Quadratus and Fascin iliaca nerve blocks in acetabulum fracture surgery

**Purpose**

Other

**Inclusion/Exclusion criteria****Inclusion criteria:**

Age 20 to 75 years ASA Class I and II Acetabular fractures Elective surgery by Stoppa method Lack of sensitivity to topical anesthetic drugs No psychiatric diseases No drug or psychedelic addiction No fractures associated with trauma to other areas of the body Patients weighing less than 85 kg

**Exclusion criteria:**

History of acetabular fracture surgery

**Age**

From **20 years** old to **75 years** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **40**

**Randomization (investigator's opinion)**

N/A

**Randomization description****Blinding (investigator's opinion)**

Not blinded

**Blinding description****Placebo**

Not used

**Assignment**

Parallel

**Other design features****Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

Ethics Committee of Shahid Beheshti University of Medical Sciences

**Street address**

Yemen Street, Shahid Chamran Highway, Tehran

**City**

Tehran

**Province**

Tehran

**Postal code**

1985717443

**Approval date**

2020-09-01, 1399/06/11

**Ethics committee reference number**

IR.SBMU.MSP.REC.1399.266

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

Acetabular fracture surgeries

**ICD-10 code**

S32.409

**ICD-10 code description**

Unspecified fracture of unspecified acetabulum

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

morphine intake

**Timepoint**

6, 12 and 24 hours after the operation

**Method of measurement**

Patient file information

**2****Description**

Postoperative analgesia

**Timepoint**

6, 12 and 24 hours after the operation

**Method of measurement**

Patient file information

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

Fentanyl used during surgery

**Timepoint**

During the surgery

**Method of measurement**

observation

**2****Description**

The amount of morphine consumed

**Timepoint**

24 hours after surgery

**Method of measurement**

observation

### 3

#### **Description**

Blood pressure

#### **Timepoint**

during surgery

#### **Method of measurement**

Blood pressure monitor

### 4

#### **Description**

heart beat

#### **Timepoint**

during surgery

#### **Method of measurement**

heart beat monitoring

## **Intervention groups**

### 1

#### **Description**

first Intervention group: Fascialia Block Group (FIB): In the supine position, after sterilizing the operation and performing cutaneous anesthesia, 2 cc of 1% lidocaine is injected at the site of the block. To perform nerve block, a high-frequency linear probe (10-25 MHz) of the ultrasound device (S-Nerre Sonosite) is used, which is placed horizontally in the inguinal region and in-plane with a needle (22 G, 80 mm). stimuplex ultra 360 ° B Braun is injected at a rate of 0.3 ml / kg and a maximum of 30 ml of 0.5% ropivacaine (manufactured by Molteni) with direct vision between the iliac fascia and the iliopsoas muscle.

#### **Category**

Treatment - Surgery

### 2

#### **Description**

Second Intervention group: QL group: In the supine position, a cloth roll is placed in the lumbar spine to lift the hip into the block entry area. After sterilizing the solution and performing skin anesthesia with a 2 cc lidocaine syringe needle, a 1% high-frequency linear probe (10-25 MHz) is inserted between the Costa Margin iliac crest at the anterior axillary line. The goal is to find the three abdominal anterolateral muscles (external oblique, internal oblique, and abdominis transverse). By moving the probe towards the posterolateral and with the disappearance of the abdominis transversal muscle and its aponeurosis being identified in the axillary posterior line, the quadratus rubrum muscle can be found, which is characterized as a hypovaco area of hypercoa aponeurosis. In this study, Curanasus lumburum 1 (QL1) or lateral Quartus lumbumum block is used, which with the help of needle (22 G, 80 mm, stimuplex ultra 360 °) B Braun ropivacaine 0.5% at a rate of 0.3 ml / g and A maximum of 30 ml is performed at the lateral termination site of the abdominis transverse muscle with precise hyperdissection.

#### **Category**

Treatment - Surgery

## **Recruitment centers**

### 1

#### **Recruitment center**

##### **Name of recruitment center**

Imam Hossein Hospital

##### **Full name of responsible person**

Sara Shayegh

##### **Street address**

The beginning of Shahid Madani Street, Imam Hossein Square

##### **City**

Tehran

##### **Province**

Tehran

##### **Postal code**

6314116177

##### **Phone**

+98 21 7343 3000

##### **Email**

Shayegh@sbmu.ac.ir

## **Sponsors / Funding sources**

### 1

#### **Sponsor**

##### **Name of organization / entity**

Shahid Beheshti University of Medical Sciences

##### **Full name of responsible person**

Afshin zarghi

##### **Street address**

Yemen Street, Shahid Chamran Highway

##### **City**

Tehran

##### **Province**

Tehran

##### **Postal code**

1983969411

##### **Phone**

+98 21 2243 9331

##### **Email**

zarghi@sbmu.ac.ir

#### **Grant name**

#### **Grant code / Reference number**

#### **Is the source of funding the same sponsor organization/entity?**

Yes

#### **Title of funding source**

Shahid Beheshti 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

**Email**

Shayegh@sbmu.ac.ir

**Person responsible for general inquiries****Contact****Name of organization / entity**

Shahid Beheshti University of Medical Sciences

**Full name of responsible person**

Sara Shayegh

**Position**

Resident

**Latest degree**

Medical doctor

**Other areas of specialty/work**

Anesthesiology

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Yemen Street, Velenjak, Chamran Highway,

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**Email**

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**Person responsible for updating data****Contact****Name of organization / entity**

Shahid Beheshti University of Medical Sciences

**Full name of responsible person**

Sara Shayegh

**Position**

Resident

**Latest degree**

Medical doctor

**Other areas of specialty/work**

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**Person responsible for scientific inquiries****Contact****Name of organization / entity**

Shahid Beheshti University of Medical Sciences

**Full name of responsible person**

Sara Shayegh

**Position**

Resident

**Latest degree**

Medical doctor

**Other areas of specialty/work**

Anesthesiology

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**Province**

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**Postal code**

19839 69411

**Phone**

+98 21 2990 8040

**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 more 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