

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 Jun 2026

The effect of isometric exercises on control of pain and return of muscle strength in lower extremity in patients admitted to the orthopedic ward

Protocol summary

Summary

Objective: The effects of isometric exercise on pain control and return muscle strength in patients with lower extremity trauma Study design : Randomized The study population: all trauma patients with fractures of femur and tibia Inclusion criteria : All patients with fracture of femur and tibia trauma Exclusion criteria : previous surgery - associated with addiction Sample : 160 Intervention : A physiotherapy session is done for 20 minutes on the first day and a session on the second day after the surgery in the intervention group. In the control group not taking action. Time : 2015 The primary outcome :Decrease of pain

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015070216221N3**

Registration date: **2015-09-06, 1394/06/15**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2015-09-06, 1394/06/15

Registrant information

Name

Ali Tajabadi

Name of organization / entity

Sabzevar University of Medical Sciences

Country

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Recruitment status

Recruitment complete

Funding source

Deputy for research and Technology of Sabzevar
University of Medical Sciences

Expected recruitment start date

2015-08-06, 1394/05/15

Expected recruitment end date

2016-02-04, 1394/11/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of isometric exercises on control of pain and return of muscle strength in lower extremity in patients admitted to the orthopedic ward

Public title

the effect of isometric exercises on return of muscle strength

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria :All trauma patients with fractures of femur and tibia exclusion criteria:Previous surgery; There Addiction; Diabetes; Cardiovascular disease and other chronic diseases; Lack of consent

Age

From **15 years** old to **45 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **160**
Randomization (investigator's opinion)
Randomized
Randomization description
Blinding (investigator's opinion)
Double blinded
Blinding description
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Sabzevar University of Medical Sciences

Street address

Deputy for Education of Sabzevar University of
Medical Sciences, Tehran road, Sabzevar, Khorasan
Razavi

City

Sabzevar

Postal code

9617637555

Approval date

2015-06-22, 1394/04/01

Ethics committee reference number

lr.medsab.rec.1394.38

Health conditions studied

1

Description of health condition studied

Lower extremity injuries

ICD-10 code

S70,S71,S7

ICD-10 code description

Injuries to the hip and thigh

2

Description of health condition studied

Lower extremity injuries

ICD-10 code

S80,S81,S8

ICD-10 code description

Injuries to the knee and lower leg

3

Description of health condition studied

Lower extremity injuries

ICD-10 code

S90,S91,S9
ICD-10 code description
Injuries to the ankle and foot

Primary outcomes

1

Description

pain

Timepoint

The first day and the second day after the intervention

Method of measurement

numerical analog scale

Secondary outcomes

1

Description

Muscle strength

Timepoint

First and second day after the intervention

Method of measurement

Manual Muscle

Intervention groups

1

Description

Intervention group : Physiotherapy for 20 minutes first
and second days after surgery

Category

Treatment - Other

2

Description

No Action

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Doctor Beheshti Emdad hospital

Full name of responsible person

Ali Tajabadi

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Sabzevar University of Medical Sciences

Full name of responsible person

Mohammad Zadeh, Mohammad

Street address

Deputy for Research and Technology of Sabzevar University of Medical Sciences, Tehran road, Sabzevar, Khorasan Razavi

City

Sabzevar

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

Yes

Title of funding source

Sabzevar University of Medical Sciences

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

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

empty

Person responsible for general inquiries

Contact**Name of organization / entity**

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Full name of responsible person

Ali Tajabadi

Position

Master of science/ nursing

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty
Clinical Study Report
empty
Analytic Code

empty
Data Dictionary
empty