

Clinical Trial Protocol

Iranian Registry of Clinical Trials

22 Jun 2026

Evaluation and comparison of trunk stabilization and lower limb abductor muscles exercises impacts on thickness changes of the selected global and local lumbar and lower limb muscles and its association with the pain intensity and disability in women with chronic low back pa

Protocol summary

Summary

First study consisted of a methodological study is to evaluate the reliability of the information collected by the examiner performed on a sample of 20 cases. In the second part : changes in the thickness of the gluteus medius, quadratus Lumbarm, transves abdominis, multifidus muscles in 30 patients with chronic low back pain and 30 healthy women by the ultrasonography will be evaluated. In Part III study : women with chronic low back pain were randomly divided into two groups: the first group (control) received conventional therapy physiotherapy to reduce pain) TENS therapy(30 min) device with a frequency 100-80 Hz and short pulse time 50 ms and heating surface (plus trunk stabilization exercises, group II) test (routine physiotherapy treatment) similar to the first group (plus abductor exercises will receive lower limbs . after 8weeks(3 times a week) will be evaluated by ultrasonography.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016081921459N3**

Registration date: **2017-06-19, 1396/03/29**

Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2017-06-19, 1396/03/29

Registrant information

Name

Mohammad Akbari

Name of organization / entity

Dept. of Physical therapy, School of Rehabilitation, Iran University of Medical Sciences.

Country

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Recruitment status

Recruitment complete

Funding source

Iran University of Medical Sciences

Expected recruitment start date

2017-06-22, 1396/04/01

Expected recruitment end date

2017-09-23, 1396/07/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation and comparison of trunk stabilization and lower limb abductor muscles exercises impacts on thickness changes of the selected global and local lumbar and lower limb muscles and its association with the pain intensity and disability in women with chronic low back pa

Public title

Effect of exercise therapy on thickness change of lower limb musclles

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: women with general health and age between 20 -45 years old. Exclusion criteria: si joint disorders; pregnant women and participants with a history of surgery in the lumbar spine; radiculopathy; persistent severe pain; neurological symptoms; osteoporosis; structural deformity; systemic inflammatory disease; previous spinal fusion; cardiovascular diseases; acute infection; recent abdominal surgery.

Age

From **20 years** old to **45 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Iran University of Medical Sciences

Street address

Iran University of Medical Sciences, Hemmat Highway, Tehran

City

Tehran

Postal code

Approval date

2017-05-22, 1396/03/01

Ethics committee reference number

IR.IUMS.REC.1396.9223643201

Health conditions studied

1

Description of health condition studied

Chronic low back pain

ICD-10 code

M54.5

ICD-10 code description

Low back pain

Primary outcomes

1

Description

Thickness change

Timepoint

Before intervention, 8 weeks after intervention

Method of measurement

Ultrasonography

Secondary outcomes

1

Description

Pain

Timepoint

Before intervention, 8 weeks after intervention

Method of measurement

VAS

2

Description

Disability

Timepoint

Before intervention, 8 weeks after intervention

Method of measurement

Quebec questionnaire

Intervention groups

1

Description

Routine physiotherapy treatment involves the use of device-TENS with frequency 80-100 Hz and surface heat and stabilization exercises, including muscle contraction multifidus and transverse abdomen in diferent positions (supine, lateral positions and quadrapd position

Category

Treatment - Other

2

Description

Routine physical therapy treatment involves the use of device-TENS with frequency 80-100 Hz and surface heat plus abductor muscle strengthening exercises.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Alzahra hospital

Full name of responsible person

Dr. Jafar Pisheh

Street address

alzahra hospital, soffeh street

City

Isfahan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Iran University of Medical Sciences

Full name of responsible person

farzaneh Jahani

Street address

Iran University of Medical Sciences, Hemmat Highway, Tehran

City

Tehran

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

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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Position

Ph.D

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m.fazel71062@gmail.com

Web page address

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