

Clinical Trial Protocol

Iranian Registry of Clinical Trials

26 Jun 2026

The effect of stabilization exercises on deep abdominal muscle activity, pain and disability in individuals following lumbar decompression surgery

Protocol summary

Summary

Objective: To evaluate the effectiveness of stabilization exercise on the transverse abdominal muscle thickness during Autonomic and functional practice in patients with lumbar decompression surgery. Study design: Non-random, without placebo control, single central. Experimental population: 40 persons who have lumbar decompression surgery during past 10 days to 4 weeks. Inclusion criteria: Patients that have age 26 to 56 years. Exclusion criteria: Patients who have: a history of spine and pelvis fracture.; Neurological diseases (Multiple sclerosis, Parkinson and etc.); certain systemic disorders (Diabetes or Rheumatism, Tuberculosis and etc.); scoliosis and spine structural kyphosis; pregnancy. Sample size, intervention, intervention time and outcome of study: 40 patients will be divided into intervention (20) and control (20) groups Intervention group: in intervention group 20 persons will receive 8 weeks exercise therapy (according to Pulkovski et al, 2012), consist of 3 sessions per week, each session about 60 minutes. Ten stabilization exercises are performed to strengthen the trunk deep muscles. The exercises will begin with various static conditions and rise to dynamic conditions, stand and walk on a treadmill. Control group: control group will not receive any intervention.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017051225732N14**
Registration date: **2017-06-27, 1396/04/06**
Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2017-06-27, 1396/04/06

Registrant information

Name

Alireza Emadi

Name of organization / entity

Semnan University of Medical Sciences, Semnan, Iran

Country

Iran (Islamic Republic of)

Phone

+98 23 3345 1336

Email address

are20935@semums.ac.ir

Recruitment status

Recruitment complete

Funding source

Semnan University of Medical Sciences

Expected recruitment start date

2017-05-22, 1396/03/01

Expected recruitment end date

2017-07-23, 1396/05/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of stabilization exercises on deep abdominal muscle activity, pain and disability in individuals following lumbar decompression surgery

Public title

The effect of stabilization exercises on deep abdominal muscle activity, pain and disability in individuals following lumbar decompression surgery

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: Patients that have age 26 to 56 years.
Exclusion criteria: Patients who have: a history of a spine

and pelvis fracture; Neurological diseases (Multiple Sclerosis, Parkinson and etc.); certain systemic disorders (Diabetes or Rheumatism, Tuberculosis and etc.); scoliosis and spine structural kyphosis; pregnancy.

Age

From **20 years** old to **65 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **40**

Randomization (investigator's opinion)

Not randomized

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, Semnan University of Medical Sciences

Street address

Semnan University of Medical Sciences, Basij Blvd, Semnan

City

Semnan

Postal code

3514799442

Approval date

2017-05-21, 1396/02/31

Ethics committee reference number

IR.SEMUMS.REC.1396.11

Health conditions studied

1

Description of health condition studied

lumbar decompression

ICD-10 code

T70.3

ICD-10 code description

Caisson disease [decompression sickness]

Primary outcomes

1

Description

Abdominal muscle thickness

Timepoint

Before and after the intervention

Method of measurement

Ultrasonography HS-2100V

Secondary outcomes

empty

Intervention groups

1

Description

Control group: no intervention will be performed in this group.

Category

Rehabilitation

2

Description

Intervention group: in intervention group 20 persons will receive 8 weeks exercise therapy consist of 3 sessions per week, each session about 60 minutes. Ten stabilization exercises are performed to strengthen the trunk deep muscles. The exercises will begin with various static conditions and rise to dynamic conditions, stand and walk on a treadmill.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Neuromuscular Rehabilitation Research Center

Full name of responsible person

Fatemeh Ehsani

Street address

Blvd Qods, Semnan

City

Semnan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Semnan University of Medical Sciences, Deputy of Research and Technology.

Full name of responsible person

Mohammadreza Asgari

Street address

Semnan University of Medical Sciences, Deputy of
Research and Technology, Basij Blvd, Semnan

City

Semnan

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

Yes

Title of funding source

Semnan University of Medical Sciences, Deputy of
Research and Technology.

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**

Semnan University of Medical Sciences

Full name of responsible person

Fatemeh Ehsani

Position

physiotherapist

Other areas of specialty/work**Street address**

Semnan University of Medical Sciences, Blvd Basij,
Semnan

City

Semnan

Postal code

3514799442

Phone

+98 23 3345 1336

Fax**Email**

are20935@gmail.com

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

Semnan University of Medical Sciences

Full name of responsible person

Fatemeh Ehsani

Position

physiotherapist

Other areas of specialty/work**Street address**

Semnan University of Medical Sciences, Blvd Basij,
Semnan

City

Semnan

Postal code

3514799442

Phone

+98 23 3345 1336

Fax**Email**

are20935@gmail.com

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

Semnan University of Medical Sciences

Full name of responsible person

Fatemeh Ehsani

Position

physiotherapist

Other areas of specialty/work**Street address**

Semnan University of Medical Sciences, Blvd Basij,
Semnan

City

Semnan

Postal code

3514799442

Phone

+98 23 3345 1336

Fax

+98 23 3344 8999

Email

are20935@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