Clinical Trial Protocol
Iranian Registry of Clinical Trials

19 Nov 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
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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
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Person responsible for updating data

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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