

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Evaluation of effect of Williams exercises versus Mc kenzie exercises on clinical outcome of patients undergoing lumbar disk herniation surgery

Protocol summary

Registration timing: **registered_while_recruiting**

Study aim

The aim of present study is to investigate the effect of Williams and Mc kenzie exercises on low back pain and abdominal and back muscle endurance in patients with lumbar disc herniation surgery.

Last update: **2019-07-25, 1398/05/03**

Update count: **0**

Registration date

2019-07-25, 1398/05/03

Design

Three arm parallel groups randomized trial with not blinded outcome assessment

Registrant information

Name

Ehsan Alimohammadi

Name of organization / entity

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Iran (Islamic Republic of)

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Settings and conduct

Patients with lumbar disk herniation surgery who operated on Imam Reza Hospital in Kermanshah were included in this study. Patients divided into three groups: group 1(patients with 8 wks of Williams exercises), group 2 patients with 8 weeks of Mc Kenzie exercises) and group 3 (control group). Patient pain, abdominal muscle endurance and lumbar muscle endurance will measure before intervention and eight weeks after intervention.

Recruitment status

Recruitment complete

Funding source

Participants/Inclusion and exclusion criteria

Inclusion criteria: Patients between 20 and 50 years old undergoing lumbar disk herniation surgery Exclusion criteria: Age more than 50 years and lower than 20 years Concomitant lumbar canal stenosis and spondylolisthesis.

Expected recruitment start date

2019-07-23, 1398/05/01

Expected recruitment end date

2019-10-23, 1398/08/01

Intervention groups

The experimental group underwent 8-weeks Williams or Mc Kenzie exercises; whereas the control group received conventional treatment at the same time.

Actual recruitment start date

empty

Actual recruitment end date

empty

Main outcome variables

Lumbar pain, abdominal muscle endurance, lumbar muscle endurance

Trial completion date

empty

General information

Scientific title

Evaluation of effect of Williams exercises versus Mc kenzie exercises on clinical outcome of patients undergoing lumbar disk herniation surgery

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190703044089N1**

Registration date: **2019-07-25, 1398/05/03**

Public title

Effect of Williams Vs Mc Kenzie exercises on clinical outcome of patients undergoing lumbar disk herniation

surgery

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Patients between 20 and 50 years old undergoing lumbar disk herniation surgery

Exclusion criteria:

Age more than 50 years and lower than 20 years
Concomitant lumbar canal stenosis and spondylolisthesis.

Age

From **20 years** old to **50 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **84**

Randomization (investigator's opinion)

Randomized

Randomization description

simple Individual randomization. we will use sealed envelopes for randomization.

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 Kermanshah University of Medical Sciences

Street address

Parastar Ave, Imamreza hospital

City

Kermanshah

Province

Kermanshah

Postal code

6761783365

Approval date

2019-07-03, 1398/04/12

Ethics committee reference number

<http://ethics.research.ac.ir/IR.KUMS.REC.1398.294>

Health conditions studied

1

Description of health condition studied

Lumbar disk herniation

ICD-10 code

M51.16

ICD-10 code description

Intervertebral disc disorders with radiculopathy, lumbar region

Primary outcomes

1

Description

Pain on the basis of Visual Analog Scale

Timepoint

Before intervention and 8 weeks after intervention

Method of measurement

Visual analogue scale to measure pain.

Secondary outcomes

1

Description

Abdominal muscle endurance

Timepoint

Before intervention and 8 weeks after intervention

Method of measurement

Trunk flexion endurance test

2

Description

Back muscle endurance

Timepoint

Before intervention and 8 weeks after intervention

Method of measurement

Modified Biering-Sorenson test

Intervention groups

1

Description

Intervention group: group 1=patients with Williams exercises

Category

Rehabilitation

2

Description

Intervention group: group 2= patients with Mc kenzie exercises

Category

Rehabilitation

3

Description

Control group: group 3= No intervention

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Imam Reza hospital

Full name of responsible person

Ehsan Alimohammadi

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Parastar Ave, Kermanshah, Imam Reza hospital

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Kermanshah University of Medical Sciences

Full name of responsible person

Farid Najafi

Street address

Parastar Ave, Imam Reza hospital

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Kermanshah 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

Person responsible for general inquiries

Contact

Name of organization / entity

Kermanshah University of Medical Sciences

Full name of responsible person

Ehsan Alimohammadi

Position

Assistant professor of neurosurgery

Latest degree

Medical doctor

Other areas of specialty/work

Neurosurgery

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Person responsible for scientific inquiries

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Ehsan Alimohammadi

Position

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Latest degree

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Neurosurgery

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Person responsible for updating data

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Fax**Email**

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

All collected deidentified IPD

When the data will become available and for how long

May 2020

To whom data/document is available

Deidentified IPD will available for people working in academic institutions

Under which criteria data/document could be used

Deidentified IPD and any additional supporting information/documents will be available via contacting with corresponding author.

From where data/document is obtainable

Deidentified IPD and any additional supporting information/documents will be available via contacting with corresponding author.

What processes are involved for a request to access data/document

Deidentified IPD and any additional supporting information/documents will be available via contacting with corresponding author after one month.

Comments