

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

15 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

##### Country

Iran (Islamic Republic of)

##### Phone

+98 83 3523 1333

##### Email address

hafez125@gmail.com

#### 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

###### Street address

Parastar Ave, Kermanshah, Imam Reza hospital

###### City

Kermanshah

###### Province

Kermanshah

###### Postal code

6761783365

###### Phone

+98 83 3427 6301

###### Email

Info@irkh.ir

### 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

###### City

Kermanshah

###### Province

Kermanshah

###### Postal code

6761783365

###### Phone

+98 83 3427 6301

###### Email

hafez125@gmail.com

##### 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

##### Street address

Parasrar Ave, Imam Reza hospital

##### City

Kermanshah

##### Province

Kermanshah

##### Postal code

6761783365

##### Phone

+98 83 3427 6301

##### Email

Info@IRKH.ir

### Person responsible for scientific 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

Specialist

##### Other areas of specialty/work

Neurosurgery

##### Street address

Kermanshah, Imam Reza hospital, department of neurosurgery

##### City

Kermanshah

##### Province

Kermanshah

##### Postal code

6761783365

##### Phone

+98 83 3523 1333

##### Fax

##### Email

hafez125@gmail.com

## Person responsible for updating data

### Contact

**Name of organization / entity**

Kermanshah University of Medical Sciences

**Full name of responsible person**

Ehsan Alimohammadi

**Position**

Assistant professor of neurosurgery

**Latest degree**

Specialist

**Other areas of specialty/work**

Neurosurgery

**Street address**

Kermanshah, Imam Reza hospital, department of neurosurgery

**City**

Kermanshah

**Province**

Kermanshah

**Postal code**

6761783365

**Phone**

+98 83 3523 1333

**Fax****Email**

hafez125@gmail.com

## 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**