Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effect of repeated lumbar traction by a door-mounted pull-up bar at home on the size and symptoms of herniated lumbar disc

Protocol summary

Summary

Objectives: Effect of repeated lumbar traction by a door-mounted pull-up bar at home on herniated lumbar disc and reduction of imposed expenses by physiotherapy Design: Prospective randomized controlled trial Setting and Conduct: 50 patients are included in the study according to the following criteria and then are separated into two groups, traction and the control group and the interventions are undertaken. Participants: Patients of K & B province referring to Yasuj Shahid Mofateh clinic due to disc herniation with the following criteria. Inclusion criteria: low back pain or sciatica due to lumbar disc herniation and L3-S1 radiculopathy; duration of pain less than 6 months; lumbar disc herniation verified by MRI; consistency in the pattern of pain complaint, neurological, and radiological findings; no history of previous physical therapy in the past; willing to take part in the study by signing a written informed consent. Exclusion criteria: low back pain due to neoplastic, inflammatory, infectious, or metabolic causes; indication of urgent surgery; spinal stenosis; pregnancy, postpartum period, and postoperative 3 months; previous vertebral surgery; LBP more than 6 months duration; gross structural abnormalities of vertebrae like listhesis; severe degenerative changes of spine; and intolerance of physical activity Interventions: In the traction group traction by suspension from a pull-up bar is assigned in addition to the routine LBP medication for 2 months (25 times a day each time 40 sec). In the control group only the routine medications are prescribed for 2 months. Main variables: Two variables are evaluated. One of them is the size of herniated material measured by a specific index called "Herniation Index" by a "blind" examiner (radiologist), and the other one is VAS for evaluation of pain intensity.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2012120311654N1**
Registration date: **2013-02-27, 1391/12/09**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2013-02-27, 1391/12/09

Registrant information

Name
Mehdi khani
Name of organization / entity
Yasuj university of medical sciences
Country
Iran (Islamic Republic of)
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Email address
drmkhani@yahoo.com

Recruitment status

Recruitment complete

Funding source

Vice chancellor for Research, Yasuj university of medical sciences

Expected recruitment start date

2011-01-21, 1389/11/01

Expected recruitment end date

2012-10-22, 1391/08/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of repeated lumbar traction by a door-mounted

pull-up bar at home on the size and symptoms of herniated lumbar disc

Public title
Effect of pull-up bar exercise on disc herniation
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria: low back pain or sciatica due to lumbar disc herniation and L3-S1 radiculopathy; duration of pain less than 6 months; lumbar disc herniation verified by MRI; consistency in the pattern of pain complaint, neurological, and radiological findings; no history of previous physical therapy in the past; willing to take part in the study by signing a written informed consent. Exclusion criteria: low back pain due to neoplastic, inflammatory, infectious, or metabolic causes; indication of urgent surgery; spinal stenosis; pregnancy, postpartum period, and postoperative 3 months; previous vertebral surgery; gross structural abnormalities (e.g. spondylolisthesis); being unable to tolerate physical exercise due to cardiovascular reasons; presence of significant degenerative changes in lumbosacral vertebrae on X-rays; and duration of low back pain of more than 6 months.
Age
No age limit
Gender
Both

Phase
2-3
Groups that have been masked
No information
Sample size
Target sample size: **50**
Randomization (investigator's opinion)
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
Yasuj medical school Ethics committee for research
Street address
Yasuj university of medical sciences, Motahari avenue, Yasuj
City
Yasuj
Postal code
Approval date
2011-11-21, 1390/08/30
Ethics committee reference number
90/8/30/4

Health conditions studied

1

Description of health condition studied
Lumbar disc herniation
ICD-10 code
M51.2
ICD-10 code description
Lumbago due to displacement of intervertebral disc

Primary outcomes

1

Description
size of herniated disc material
Timepoint
before intervention- 2 months after intervention
Method of measurement
Herniation Index

2

Description
pain intensity
Timepoint
Before intervention- 2 months after intervention
Method of measurement
VAS

Secondary outcomes

empty

Intervention groups

1

Description
50 patients who have the mentioned criteria will be admitted to the study with their signed consent. They are randomly divided in to two groups: the traction group and the control group. The traction group includes 25 patients and they are given a program of repeated lumbar traction by suspension from a pull up bar for 2 months (at least 25 times a day each time for 40 seconds) plus routine medication for disc herniation.
Category
Treatment - Other

2

Description
The control group includes 25 patients and they are

given the routine medication (NSAID, Corticosteroids, Antispasmodics) without traction for a duration of 2 months.

Category
Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center
Shahid Mofateh clinic

Full name of responsible person
Mehdi Khani

Street address
Montazeri avenue, Yasuj

City
Yasuj

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Vice Chancellor for Research, Yasuj university of medical sciences

Full name of responsible person
Mr Negintaji

Street address
Vice Chancellor for Research, Yasuj university of medical sciences, Motahari avenue, Yasuj

City
Yasuj

Grant name

Grant code / Reference number

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

Title of funding source
Vice Chancellor for Research, Yasuj 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
Yasuj university of medical sciences

Full name of responsible person
Mehdi Khani

Position
neurosurgeon

Other areas of specialty/work

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Mr Niknam's house, Sardar 2 alley, Montazeri st.

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Person responsible for scientific inquiries

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Full name of responsible person
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Position
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City
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Fax

Email

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