

Clinical Trial Protocol

Iranian Registry of Clinical Trials

12 Jul 2026

Comparing the effect of acupuncture and medical treatment on clinical symptoms and electromyography/nerve conduction velocity (EMG/NCV) changes in patients with lumbar disk herniation

Protocol summary

Summary

Objectives: in this study we try to compare the effect of acupuncture and medical treatment on the clinical symptoms and electromyography/nerve conduction velocity (EMG/NCV) changes in patients with lumbar disk herniation referring to Imam Reza Hospital in 2013-2015. **Design:** In this interventional study, 105 patients with clinical diagnosis of lumbar disc herniation by a rheumatologist are randomly assigned to either the "acupuncture", "medical treatment" and "Sham acupuncture" groups (35 each). **Setting and conduct:** Before study initiation all participants fill a clinical symptoms questionnaire and are accordingly evaluated by electro-diagnostic tests. Patients in the medical treatment group in addition to two Celebrex 100mg tablets divided in morning and night, the Williams flexion exercises are prescribed daily for one month. The acupuncture groups are referred to an acupuncture specialist to receive acupuncture treatment for one month. **Participants including major eligibility criteria:** over 20 years of age, confirmed lumbar disc herniation, willing to participate. **Interventions:** Acupuncture treatment is given 3 times, each session 30 minutes for four weeks. Needle insertion points are fixed in all sessions. **Main outcome measure variables:** three months after the end of treatment, the patients refer to our clinic to refill the questionnaire and to be re-evaluated for clinical symptoms and EMG/NCV changes.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2012122911912N2**
Registration date: **2015-12-03, 1394/09/12**
Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2015-12-03, 1394/09/12

Registrant information

Name

Hamidreza Bahrami Taghanaki

Name of organization / entity

Mashhad University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Research Council of Mashhad University of Medical Sciences

Expected recruitment start date

2013-08-23, 1392/06/01

Expected recruitment end date

2016-03-10, 1394/12/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparing the effect of acupuncture and medical treatment on clinical symptoms and electromyography/nerve conduction velocity (EMG/NCV) changes in patients with lumbar disk herniation

Public title

Comparing the effect of acupuncture and medical treatment on subjective symptoms and neuromuscular electrophysiologic changes in patients with lumbar disk herniation

Purpose

Treatment

Inclusion/Exclusion criteria

Major eligibility criteria: over 20 years of age, confirmed lumbar disc herniation, willing to participate. Major exclusion criteria: Polyneuritis or lesions of the cervical radiculopathy; hypothyroidism; multiple myeloma; amyloidosis; inability to perform daily functions individually; previous acupuncture treatment or surgery for low back pain; insulin dependent diabetes; pregnancy or less than 3 month post partum; epilepsy; cardiovascular disease; history of gastrointestinal disease and intolerance for NSAIDS; history of warfarin or heparin consumption or a hemorrhagic disease; having the indications for surgery according to red flags and yellow flags.

Age

From **19 years** old

Gender

Both

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **105**

Randomization (investigator's opinion)

Randomized

Randomization description**Blinding (investigator's opinion)**

Not blinded

Blinding description**Placebo**

Used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics Committee of Mashhad University of Medical Sciences

Street address

Deputy of Research, GHoreyshi building, Daneshgah St.,

City

Mashhad

Postal code

91388-13944

Approval date

2013-04-13, 1392/01/24

Ethics committee reference number

IR.MUMS.REC.1392.22

Health conditions studied**1****Description of health condition studied**

Lumbar disc herniation

ICD-10 code

M51

ICD-10 code description

Other intervertebral disc disorders

Primary outcomes**1****Description**

Electrodiagnostic (EMG/NCV) changes (CMAP, DML, DSL, MNCV)

Timepoint

before and 3 months after the intervention

Method of measurement

repeating the mentioned tests

Secondary outcomes**1****Description**

reduced low back pain

Timepoint

before and 3 months after intervention

Method of measurement

questionnaire

Intervention groups**1****Description**

Study group: Acupuncture treatment with 0.25840mm size needles in 20 acupoints , 3 times a week, each session 30 min for one month

Category

Other

2**Description**

Control group: 100mg Celebrex tablets, twice daily (morning and night) plus Williams flexion exercise daily for one month

Category

Treatment - Drugs

3

Description

Added at 2016-09-10: acupuncture with 0.25*40 mm size needles on acupoints no effect on treatment , 3 times a week, each session 30 min for one month

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

electrodiagnostics clinic and acupuncture clinic of Imam Reza Hospital,

Full name of responsible person

Hosein Hasanabadi

Street address

City

Mashhad

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for Research, Mashhad University of Medical Sciences

Full name of responsible person

Mina Ramezani

Street address

Ghoreyshi Building, Daneshgah St.

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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

Vice Chancellor for Research, Mashhad 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

Mashhad University of Medical Sciences

Full name of responsible person

Hosein Hasanabadi

Position

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Other areas of specialty/work

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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