

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

A Comparison of Lumbar Specific Stabilization Exercises and General Exercises for Reducing Pain and Disability: A Randomized Controlled Trial of Patients with Spondylolysis and Spondylolisthesis

Protocol summary

Summary

The purpose of this study was to compare lumbar muscle specific stabilization exercises with general exercises used for reducing pain and disability among patients with spondylolysis and spondylolisthesis. This single-blind, randomized controlled trial was performed at Zahedan University of Medical Sciences, in 2009. Twenty-four patients with spondylolysis and spondylolisthesis participated through simple non-probability sampling. Patients were selected based on following inclusion criteria: Nonspecific LBP for a period of at least 3 months, participants aged over 18 and less than 80 years old, appropriateness of motor control exercise in accordance with clinical assessment, patients who have not been contraindicated from doing exercise based on PARQ, participants diagnosed with Isthmic Spondylolysis or Spondylolisthesis by specialist, and patients who have not been contraindicated from doing exercise based on the (American College of Sports Medicine) ACSM guidelines. Patients were excluded if they had suspected for spinal pathology, pregnancy, nerve root complications, spinal column surgery, insufficient treatment, using other therapeutic modalities during the study. Subjects were randomly assigned to either the stabilization (N=12) or the general exercise group (N=12). Before and after intervention, we assessed pain (ordinal) through Visual Analogue Scale (VAS), lumbar lordosis (degree) with flexible ruler, range of lumbar flexion (centimeter) using Modified Schober test, and disability (ordinal) with The Oswestry Disability Index (ODI). A 24 session's exercise program which lasted 12 weeks, twice per week, and 30 minutes per session was performed for both groups

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201106231675N6**

Registration date: **2011-09-21, 1390/06/30**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2011-09-21, 1390/06/30

Registrant information

Name

Asghar Akbari

Name of organization / entity

Zahedan University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor for Research of Zahedan University of Medical Sciences

Expected recruitment start date

2009-04-30, 1388/02/10

Expected recruitment end date

2010-03-11, 1388/12/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

A Comparison of Lumbar Specific Stabilization Exercises and General Exercises for Reducing Pain and Disability: A Randomized Controlled Trial of Patients with Spondylolysis and Spondylolisthesis

Public title

A Comparison of Lumbar Specific Stabilization Exercises and General Exercises for Reducing Pain and Disability: A Randomized Controlled Trial of Patients with Spondylolysis and Spondylolisthesis

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Nonspecific LBP for a period of at least 3 months; Participants aged over 18 and less than 80 years old; Appropriateness of motor control exercise in accordance with clinical assessment; Patients who have not been contraindicated from doing exercise based on PARQ; Participants diagnosed with Isthmic Spondylolysis or Spondylolisthesis by specialist; and Patients who have not been contraindicated from doing exercise based on the (American College of Sports Medicine) ACSM guidelines. Exclusion criteria: Patients suspected for spinal pathology; Pregnancy; Nerve root complications; Spinal column surgery; Insufficient treatment; Using other therapeutic modalities during the study.

Age

From **18 years** old to **80 years** old

Gender

Both

Phase

2

Groups that have been masked

No information

Sample size

Target sample size: **24**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

1

Registry name

No registration

Secondary trial Id

No trial id

Registration date

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Zahedan University of Medical Sciences

Street address

Deputy of Research, Zahedan University of Medical Sciences, Jannat Blvd., Dr. Hesabi Sq., Zahedan.

City

Zahedan

Postal code

Approval date

2011-07-10, 1390/04/19

Ethics committee reference number

90-874

Health conditions studied

1

Description of health condition studied

Spondylolysis and Spondylolisthesis

ICD-10 code

M43.0 and

ICD-10 code description

Other deforming dorsopathies

Primary outcomes

1

Description

Back pain

Timepoint

Before intervention, 12 weeks after intervention

Method of measurement

Visual Analogue Scale

2

Description

Angle of lumbar lordosis

Timepoint

Before intervention, 12 weeks after intervention

Method of measurement

Flexible ruler

3

Description

Range of lumbar flexion

Timepoint

Before intervention, 12 weeks after intervention

Method of measurement

Modified Schober Test

4

Description

Disability

Timepoint

Before intervention, 12 weeks after intervention

Method of measurement

The Oswestry Disability Index

Secondary outcomes

empty

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

Lumbar Specific Stabilization Exercises: A 24 session's exercise program which lasted 12 weeks, twice per week, and 30 minutes per session

Category

Rehabilitation

2**Description**

General Exercises: Including classic abdominal and back exercises: A 24 session's exercise program which lasted 12 weeks, twice per week, and 30 minutes per session

Category

Rehabilitation

Recruitment centers**1****Recruitment center****Name of recruitment center**

Razmejo-Moghadam Physiotherapy Clinic

Full name of responsible person

Dr. Asghar Akbari

Street address

Dept. of Physiotherapy, School of Rehabilitation Sciences, Razmejo-Moghadam Laboratory, Ayatoallah Kafami St., Zahedan.

City

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Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Vice Chancellor for Research of Zahedan University of Medical Sciences

Full name of responsible person

Dr. Hamidreza Mahmoodzadeh Sagheb

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Deputy Of Research, Zahedan University of Medical Sciences, Jannat Blvd., Dr. Hesabi Sq., Zahedan.

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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 of Zahedan 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**

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Full name of responsible person

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Position

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Other areas of specialty/work**Street address**

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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