

Clinical Trial Protocol

Iranian Registry of Clinical Trials

22 Jul 2026

Investigation of the effect of Sahrman exercises on lumbo-pelvic motor control, balance, pain and disability in chronic low back pain patients with lumbar rotation-extension syndrome: A randomized clinical trial

Protocol summary

Summary

Objectives: investigation of the effect of Sahrman exercises on lumbo-pelvic motor control, balance, pain and disability in chronic low back pain patients with rotation-extension syndrome. Design: in this randomized controlled trial study (phase 2), patients were selected through nonprobability simple sampling and were assigned randomly to 2 groups by using consecutive assignment, Sahrman exercises group and control group. Setting: this randomized clinical trial was performed in Zahedan University of Medical Sciences, from 22-10-2016 to 11-02-2017. Inclusion criteria: chronic pain located between costal margin to gluteal fold with or without radiation to lower limb, age between 18 to 50 years old and positive lumbar rotation-extension syndrome according to diagnostic tests. Exclusion criteria: pregnancy, vertebral fracture, vestibular system disorders. Sample size: 30 subjects (15 person in each group). Intervention group: Sahrman exercises for 4 weeks, 3 days per week, Control group: electrotherapy (Trans Cutaneous Electrical Neuromuscular Stimulation device, UltraSound, HotPack) for 4 weeks, 3 days per week. Outcomes: variables were include of lumbo-pelvic motor control, balance, pain and disability that measured one day before of the intervention and one day after the intervention. The lumbo-pelvic motor control measured using pressure biofeedback, balance measured using biodex, the pain measured using Visual Analog Scale (VAS) and the disability measured using Oswestry Disability Index (ODI).

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017012028186N2**
Registration date: **2017-03-06, 1395/12/16**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2017-03-06, 1395/12/16

Registrant information

Name

Mohammad Hosseinifar

Name of organization / entity

Zahedan University of Medical Sciences

Country

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor for Research, Zahedan University of Medical Sciences

Expected recruitment start date

2016-10-26, 1395/08/05

Expected recruitment end date

2017-02-16, 1395/11/28

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigation of the effect of Sahrman exercises on lumbo-pelvic motor control, balance, pain and disability

in chronic low back pain patients with lumbar rotation-extension syndrome: A randomized clinical trial

Public title

Investigation of the effect of Sahrman exercises in chronic low back pain patients with lumbar rotation-extension syndrome

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: chronic pain located between costal margin to gluteal fold with or without radiation to lower limbs, age between 18 to 50 years old, positive lumbar rotation-extension syndrome according to diagnostic tests. Exclusion criteria: pregnancy, vertebral fracture, tumor, infection, spine surgery, serious deformation of the spine, cardiovascular disorders, vestibular system disorders, central nervous system disorders, vision problems, sensory defects or motor paralysis, neurological and rheumatological diseases and not complete of the assessment and treatment sessions regularly.

Age

From **18 years** old to **50 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

In this clinical trial (phase 2) patients by using consecutive assignment were assigned into two groups, Sahrman exercises(15 subjects) and control group(15 subjects).

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Zahedan University of Medical Sciences

Street address

Deputy of Research, Zahedan University of Medical

Sciences, Jannat Blvd., Dr. Hesabi Sq

City

Zahedan

Postal code

9816743463

Approval date

2016-10-23, 1395/08/02

Ethics committee reference number

IR.ZAUMS.REC.1395.192

Health conditions studied

1

Description of health condition studied

chronic low back pain with rotation-extension syndrome

ICD-10 code

M95-M99

ICD-10 code description

Other disorders of the musculoskeletal system and connective tissue

Primary outcomes

1

Description

lumbo-pelvic motor control

Timepoint

Before and after the period of the interventions

Method of measurement

Using pressure biofeedback

2

Description

Balance

Timepoint

Before and after the period of the interventions

Method of measurement

Using biodex

Secondary outcomes

1

Description

Pain

Timepoint

Before and after the period of the interventions

Method of measurement

Using Visual Analog Scale (VAS) questionnaire

2

Description

Disability

Timepoint

Before and after the period of the interventions

Method of measurement

Using Oswestry Disability Index(ODI) questionnaire

Intervention groups

1

Description

Control group: 12 sessions treatment during 4 consecutive weeks, three times per week, each session including: 15 minutes TENS, 20 minutes Hot Pack and 5 minutes UltraSound

Category

Rehabilitation

2

Description

Sahrmann exerciseS group: 12 sessions exercise during 4 consecutive weeks, three times per week, 30 minutes pre session including: exercises just 10-15 times for 10-15 seconds with 2 minutes of rest between exercises in 8 positions: supine, sidelying, prone, quadruped, sitting, sitting to standing, standing and walking from easy to difficult done.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Razmjo Moghadam Physiotherapy Clinic

Full name of responsible person

Dr.Mohammad Hosseinifar

Street address

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

City

Zahedan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for Research, Zahedan University of Medical Sciences

Full name of responsible person

Dr. Hoshang Rafighdost

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

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Zahedan

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, 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

Zahedan University of Medical Sciences

Full name of responsible person

Dr. Mohammad Hosseinifar

Position

Ph.D in Physiotherapy

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