Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Investigating the effect of walking on postural reactions, pain and disability in patients with non-specific chronic low back pain

Protocol summary

Study aim
Investigating the effect of walking on postural reactions, pain and disability in non-specific chronic low back pain patients

Design
The study will be a clinical trial type with two control groups with routine physiotherapy treatment and an intervention group with walking exercises on a treadmill on 30 patients.

Settings and conduct
This study will be conducted in Zahedan, Razmjomoghadam Physiotherapy Clinic of Medical Sciences University on volunteer patients with non-specific chronic back pain. Patients will be randomly assigned to one of the groups of routine treatment and walking therapy.

Participants/Inclusion and exclusion criteria
Entry requirements: 1) Women and men aged between 18-45 years 2) Chronic back pain in the area between the twelfth rib and the rump without reference to the lower limbs that lasts for more than three months and has no specific cause. 3) Ability of patients to walk for 20 minutes daily Conditions of non-entry: 1) Having a history of neurological disorder 2) Rheumatic and inflammatory diseases 3) Cancer 4) Spinal cord lesions 5) History of back and abdominal surgery 6) structural injuries of the spine 7) Pregnancy or history of pregnancy in the last year 8) History of therapeutic exercise in the last 3 months

Intervention groups
The first group or the control group will receive routine physiotherapy treatment and exercises, and the second group will receive routine physiotherapy treatment along with walking forward, backward and sideways on a treadmill.

Main outcome variables
Static, dynamic balance indicators, pain, disability

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20180714040466N7**
Registration date: **2023-10-09, 1402/07/17**
Registration timing: **prospective**

Last update: **2023-10-09, 1402/07/17**
Update count: **0**

Registration date
2023-10-09, 1402/07/17

Registrant information

Name
Fateme Ghiasi

Name of organization / entity

Country
Iran (Islamic Republic of)

Phone
+98 54 3341 6708

Email address
f_ghiasi_p@zaums.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-10-23, 1402/08/01

Expected recruitment end date
2023-11-22, 1402/09/01

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title

Investigating the effect of walking on postural reactions, pain and disability in patients with non-specific chronic low back pain

Public title
Investigating the effect of walking on postural reactions in patients with low back pain
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Years: Range:18-45, males and females Chronic back pain in the area between the twelfth rib and the rump without reference to the lower limbs, which has lasted for more than three months and has no specific cause and has caused problems in performance and physical disability and has not subsided. People with a desire to enter the study
Exclusion criteria:
History of neurological disorder Rheumatic diseases Cancer Spinal cord lesions History of surgery Structural injuries of the spine Pregnancy History of therapeutic exercise in the last 3 months
Age
From **18 years** old to **60 years** old
Gender
Both

Phase
3
Groups that have been masked
No information
Sample size
Target sample size: **30**
Randomization (investigator's opinion)
Randomized
Randomization description
Based on the number of patients in each group,the particular sort of treatment(The electrotherapy treatment group and routine physiotherapy exercises or the electrotherapy routine treatment group includes physiotherapy along with walking exercises on the treadmill, including walking forward, walking backwards and walking sideways) is written on a piece of paper.Each paper is placed in a sealed envelope.One envelope will be chosen randomly by the therapist at the first session of the patient treatment and the patient's treatment technique is selected based on that.If any of the patients is omitted from the study, one envelope related to the excluded patient treatment group will be replaced and they will mixed again.
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 Zahedan University of Medical Sciences
Street address
Dr. Hesabi Street
City
Zahedan
Province
Sistan-va-Balouchestan
Postal code
9816743463
Approval date
2023-10-08, 1402/07/16
Ethics committee reference number
IR.ZAUMS.REC.1402.255

Health conditions studied

1

Description of health condition studied
Chronic non-specific low back pain
ICD-10 code
M54.9
ICD-10 code description
Dorsalgia, unspecified

Primary outcomes

1

Description
1-Overall static stability index
Timepoint
The beginning of the study (before the start of the intervention) and the end of the 6-week treatment period
Method of measurement
Biodex device

2

Description
Anterior-posterior static stability index
Timepoint
The beginning of the study (before the start of the intervention) and the end of the 6-week treatment period
Method of measurement
Biodex device

3

Description
Internal and external static stability index
Timepoint
The beginning of the study (before the start of the intervention) and the end of the 6-week treatment period
Method of measurement

Biodex device

4

Description
Overall dynamic stability index
Timepoint
The beginning of the study (before the start of the intervention) and the end of the 6-week treatment period
Method of measurement
Biodex device

5

Description
Anterior-posterior dynamic stability index
Timepoint
The beginning of the study (before the start of the intervention) and the end of the 6-week treatment period
Method of measurement
Biodex device

6

Description
Stability index of internal and external dynamics
Timepoint
The beginning of the study (before the start of the intervention) and the end of the 6-week treatment period
Method of measurement
Biodex device

7

Description
Pain intensity index
Timepoint
The beginning of the study (before the start of the intervention) and the end of the 6-week treatment period
Method of measurement
VAS questionnaire

8

Description
Disability severity index
Timepoint
The beginning of the study (before the start of the intervention) and the end of the 6-week treatment period
Method of measurement
Oswestry Questionnaire

Secondary outcomes

empty

Intervention groups

1

Description
Control group: Electrotherapy includes 20 minutes of TENS, 20 minutes of infrared, stretching and strengthening exercises, and active free exercise for lumbosacral. The total duration of a physiotherapy session will be one hour. It will last three days a week for six weeks.
Category
Rehabilitation

2

Description
Intervention group: In addition to the treadmill walking routine, it will include walking forward, walking backward, and walking sideways. First, the exercise period will start with ten minutes of walking forward. Then, every week, walking backwards and walking to the sides will be added for five minutes, so that in the fifth week of the research, the total time of walking on the treadmill will be thirty-five minutes and will be done in all directions.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Razmjo Moghadam Clinic
Full name of responsible person
Keyvan Mirzabakhri
Street address
Razmejo Moghadam Laboratory, Ayatoallah Kafami St.
City
Zahedan
Province
Sistan-va-Balouchestan
Postal code
9813664855
Phone
+98 54 3342 4675
Email
keivan.mb@gmail.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Zahedan University of Medical Sciences
Full name of responsible person
Noor Mohammad Bakshaei
Street address
Zahedan University of Medical Sciences, Dr.Hesabi sq.
City
Zahedan
Province
Sistan-va-Balouchestan
Postal code
9816743463

Phone
+98 54 3329 5796
Email
f_ghiasi_p@zaums.ac.ir

Grant name

Grant code / Reference number

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

Title of funding source
Zahedan 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
Zahedan University of Medical Sciences
Full name of responsible person
Fateme Ghiasi
Position
Assistance Professor
Latest degree
Ph.D.
Other areas of specialty/work
Physiotherapy
Street address
Khatam al anbia Hosp, Jame jam Blvd
City
Zahedan
Province
Sistan-va-Balouchestan
Postal code
9815733169
Phone
+98 54 3322 0501
Email
f_ghiasi_p@zaums.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity
Zahedan University of Medical Sciences
Full name of responsible person
Fateme Ghiasi
Position
Assistance professor
Latest degree
Ph.D.
Other areas of specialty/work
Physiotherapy
Street address
Khatam al anbia Hosp, Jame jam Blvd
City
Zahedan
Province
Sistan-va-Balouchestan
Postal code
9815733169
Phone
+98 54 3322 0501
Email
f_ghiasi_p@zaums.ac.ir

Person responsible for updating data

Contact

Name of organization / entity
Zahedan University of Medical Sciences
Full name of responsible person
Fateme Ghiasi
Position
Assistance professor
Latest degree
Ph.D.
Other areas of specialty/work
Physiotherapy
Street address
Khatam al anbia Hosp, Jame jam Blvd
City
Zahedan
Province
Sistan-va-Balouchestan
Postal code
9815733169
Phone
+98 54 3322 0501
Email
f_ghiasi_p@zaums.ac.ir

Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available

Study Protocol
Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available

Analytic Code
Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary
Undecided - It is not yet known if there will be a plan to

make this available