Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

The effect of adding paraspinal lumbar muscle dry Needling technique to the general postural reeducation approach of patients with non-specific chronic low back pain

Protocol summary

Study aim
Comparative evaluation of the effects of paraspinal muscles dry needling against the GPR (General Postural Retraining) approach in patients with non-specific chronic low back pain

Design
This study is a clinical trial including control and intervention groups with parallel, double-blind groups on 40 patients, who will be randomly divided into two groups.

Settings and conduct
This study will be performed in a private clinic in Tehran, Iran. In intervention group, 10 GPR sessions will be performed every other day in combination to 5 dry needling sessions. In the control group, 10 GPR sessions will be performed every other day.

Participants/Inclusion and exclusion criteria
Inclusion: People with low back pain who are in the age range of 25 to 50 years Pain more than 3 base on Visual Analogue Scale (VAS) Disability score of at least 25 Non-specific low back pain for three months or more Results of the below test should be positive: Anterior and posterior pelvic tilt Prone hip extension test Side lying hip abduction test Thomas test Ober test

Intervention groups
In this study, both groups receive the GPR technique and in the intervention group, the dry needling technique will be added.

Main outcome variables
Pain, function, flexibility.

General information

Reason for update

Acronym
GPR

IRCT registration information
IRCT registration number: **IRCT20211123053161N1**
Registration date: **2022-01-03, 1400/10/13**
Registration timing: **registered_while_recruiting**

Last update: **2022-01-03, 1400/10/13**
Update count: **0**

Registration date
2022-01-03, 1400/10/13

Registrant information

Name
Naeimeh Alimardani

Name of organization / entity

Country
Iran (Islamic Republic of)

Phone
+98 21 4460 8378

Email address
naeimeh.alimardani@gmail.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2021-11-20, 1400/08/29

Expected recruitment end date
2022-02-04, 1400/11/15

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
The effect of adding paraspinal lumbar muscle dry Needling technique to the general postural reeducation approach of patients with non-specific chronic low back

pain

Public title
adding paraspinal lumbar muscle dry Needling technique to the general postural reeducation approach of patients with non-specific chronic low back pain
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Existence of pain based on visual analog scale more than 3 and 4 Disability score of at least 25 Low Back Pain for more than three months without specific cause Positive tests of muscle Imbalance
Exclusion criteria:
Neurological, Rheumatic, or oncological problems They received physiotherapy less than 6 months ago Did not take the corticosteroids or oral medications Those who had needling phobia Osteoporosis Systemic disease such as arthritis The history of pelvic and lumbar surgery during the last six months Pregnancy No muscle imbalance
Age
From **25 years** old to **50 years** old
Gender
Both

Phase
N/A
Groups that have been masked

- Participant
- Outcome assessor

Sample size
Target sample size: **40**
Randomization (investigator's opinion)
Randomized
Randomization description
The allocation of individuals to the two groups will be by random allocation. Block randomization will be used. The therapist divides people into subgroups called blocks. 8 to four blocks are selected. Individuals in each block are randomly divided into two groups: control (A) and treatment (B). We have 40 per in block each group 20 per in intervention group and 20 per in control group to do this, excel computer software is used.
Blinding (investigator's opinion)
Double blinded
Blinding description
The blinding of this study will be double-blind. In other words, people enter the study randomly and in the grouping, neither the people themselves know which group they are in nor the person who does the evaluation.
Placebo
Not used
Assignment
Parallel
Other design features
The way of grouping in this study is that both control and intervention groups receive a basic treatment (general postural retraining), but in the intervention group, in addition to the basic treatment, dry needle treatment will be performed for them.

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics Committee of the University of Social Welfare and Rehabilitation Sciences
Street address
Daneshjoo Blvd., Koodkiar Alley, University of Social Welfare and Rehabilitation Sciences
City
Tehran
Province
Tehran
Postal code
14731-19373
Approval date
2021-11-20, 1400/08/29
Ethics committee reference number
IR.USWR.REC.1400.208

Health conditions studied

1

Description of health condition studied
Non-Specific chronic low back pain
ICD-10 code
M95.9
ICD-10 code description
Acquired deformity of musculoskeletal system, unspecified

Primary outcomes

1

Description
1-Pain
Timepoint
Before, after and 2 weeks follow up
Method of measurement
Visual analog scale

2

Description
2- Function
Timepoint
Before, after and 2 weeks follow up
Method of measurement
Ostwersy disability index

3

Description
Flexibility level
Timepoint
Before, after and 2 weeks follow up
Method of measurement
Finger to floor test

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Treatment in this group includes 10 sessions GPR with one day interval (three times in a week) plus 5 sessions of dry needling.
Category
Treatment - Devices

2

Description
Control group: In this group, only ten GPR sessions are given every other day.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Private physiotherapy clinic
Full name of responsible person
Naeimeh Alimardani
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South Janatabad St., Chahar Bagh Square, Green Building, First Floor, Unit 12
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
University of social welfare and rehabilitation sciences
Full name of responsible person
Dr. Hamid reza khoram khorshid
Street address
Daneshjoo Blvd., Koodkiar Alley, University of Social Welfare and Rehabilitation Sciences
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Postal code
1985713834
Phone
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Email
webmaster@uswr.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
University of social welfare and rehabilitation 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
University of social welfare and rehabilitation sciences
Full name of responsible person
Naeimeh Alimardani
Position
Master student
Latest degree
Master
Other areas of specialty/work
Physiotherapy
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available

Study Protocol
Yes - There is a plan to make this available

Statistical Analysis Plan
Yes - There is a plan to make this available

Informed Consent Form
Yes - There is a plan to make this available

Clinical Study Report
Yes - There is a plan to make this available

Analytic Code
Yes - There is a plan to make this available

Data Dictionary
Yes - There is a plan to make this available

Title and more details about the data/document
Some of the data, such as information about the consequences, can be shared.

When the data will become available and for how long
Starting the access period: 6 months after publition the results.

To whom data/document is available
Researchers working in academic and academic institutions.

Under which criteria data/document could be used
Only statistical analyzes can be used to find treatment for improvement of patients.

From where data/document is obtainable
Applicants can be guided by email authors.

What processes are involved for a request to access data/document
First, they will email the authors of the study and we Will be answered within a week.

Comments