

Clinical Trial Protocol

Iranian Registry of Clinical Trials

04 Aug 2026

The Effect of Gluteus Medius Dry Needling on Management of Nonspecific Chronic Low Back Pain in Athletes

Protocol summary

Study aim

In this study, we sought to see if adding a dry gluteus medius needle to common treatment could improve symptoms of low back pain in people with chronic nonspecific low back pain and improve their quality of life?

Design

Clinical trial with control group, with parallel groups, one-way blind, randomized, on 20 patients. The group name was used on pieces of paper for randomization.

Settings and conduct

Individuals in the private clinic are initially evaluated the day before the first treatment session. The evaluation includes the VAS chart, PPT, Y Balance Test, and the ODI questionnaire. A physiotherapist evaluates and collects data (which group is being treated The needle is dry (no) and the other physiotherapist treats the two groups.

Participants/Inclusion and exclusion criteria

People of 18 to 35 years who are active in running sports. People who have had non-specific, unilateral back pain for at least three months in the past year. People with VAS between 3 and 7 The length of the two lower limbs are equal. Existence of tenderness in the gluteus medius muscle on the painful side of the lower back Exit : People whose back pain is caused by a specific cause such as radiculopathy, fracture, tumor or any other specific cause. People who have a history of back or pelvic surgery. Existence of pelvic and knee dysfunction such as valgus or knee vertebrae. Pregnancy Having systemic diseases such as arthritis or tuberculosis. Scoliosis. People with pelvic pathology.

Intervention groups

The study has two intervention and control groups. Both groups receive routine physiotherapy and the needle treatment group receives routine physiotherapy in addition.

Main outcome variables

VAS ; PPT ; YBT ; ODI

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210201050203N1**

Registration date: **2021-03-14, 1399/12/24**

Registration timing: **prospective**

Last update: **2021-03-14, 1399/12/24**

Update count: **0**

Registration date

2021-03-14, 1399/12/24

Registrant information

Name

Benyamin Kianypour

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 4489 5990

Email address

benykiany@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-03-30, 1400/01/10

Expected recruitment end date

2021-06-25, 1400/04/04

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Effect of Gluteus Medius Dry Needling on Management of Nonspecific Chronic Low Back Pain in Athletes

Public title

The Effect of Gluteus Medius Dry Needling on Management of Nonspecific Chronic Low Back Pain in Athletes

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Athletes who are active in running sports People who have had non-specific, unilateral back pain for at least three months in the past year. People with VAS between 3 and 7 The length of the two lower limbs is equal Tenderness in the gluteus medius muscle on the painful side of the lower back

Exclusion criteria:

People whose back pain is caused by a specific cause such as radiculopathy, fracture, tumor or any other specific cause. People who have a history of back or pelvic surgery. Existence of pelvic and knee dysfunction such as valgus and knee vertebrae. pregnancy Having systemic diseases such as arthritis or tuberculosis. scoliosis People with pelvic pathology.

Age

From **18 years** old to **35 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **20**

Randomization (investigator's opinion)

Randomized

Randomization description

We write the name of one of the two groups on a piece of paper and place it in a container. Each of the volunteers takes one of the papers and randomly places it in one of the two groups.

Blinding (investigator's opinion)

Single blinded

Blinding description

In this study, outcome assessors are unaware of the allocation of study groups. The therapist was separate from the evaluator and therefore unaware of the assignment of study groups.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Tehran University of Medical Sciences

Street address

NO 12 ; hoseini ave ; adl blvd ; ponak

City

Tehran

Province

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Postal code

1476676413

Approval date

2021-02-04, 1399/11/16

Ethics committee reference number

IR.tums.medicine.rec.1399.1057

Health conditions studied

1

Description of health condition studied

Non specific chronic low back pain

ICD-10 code

M54.5

ICD-10 code description

Low back pain

Primary outcomes

1

Description

pain

Timepoint

The first session, the fifth session and two days after the end of treatment

Method of measurement

Visual Analog Scale

2

Description

pain pressure threshold

Timepoint

The first session, the fifth session and two days after the end of treatment

Method of measurement

algometer device

3

Description

disability

Timepoint

The first session, the fifth session and two days after the end of treatment

Method of measurement

4**Description**

FUNCTIONAL STATUS

Timepoint

The first session, the fifth session and two days after the end of treatment

Method of measurement

Y BALANCE TEST

Secondary outcomes

empty

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

Control group: Routine physiotherapy including hot pack for 20 minutes, tennis brace for 20 minutes with a new electric stimulation device made in Iran, home exercises including posterior pelvic tilt and stretching of hip flexors twice a day, three sets each time and each set ten is repetitive

Category

Treatment - Devices

2**Description**

Intervention group: Intervention group: In this group, in addition to routine physiotherapy, dry needle treatment for gluteus medius muscle is also performed in a meeting in between

Category

Rehabilitation

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

Iran Football Federation

Full name of responsible person

Benyamin Kianypour

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

Tehran University of Medical Sciences

Full name of responsible person

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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

Tehran University of Medical Sciences

Proportion provided by this source

5

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**

Tehran University of Medical Sciences

Full name of responsible person

Dr. Azadeh Shadmehr

Position

Profesor

Latest degree

Ph.D.

Other areas of specialty/work

Physiotherapy

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Person responsible for scientific inquiries

Contact

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Azadeh Shadmehr
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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