

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

The Effect of Dry Needle Intervention on AcromioHumeral Distance and Shoulder Pain and Disability in Patient with Subacromial Pain Syndrome.

Protocol summary

Study aim

The aim of this study was to investigate the effect of dry needle on the subacromial space(SAS).

Design

The clinical trial has two non-randomized and parallel groups of intervention and control with 3 months follow-up and designed for 30 samples which are entered into each of the intervention or control groups one by one according to the order of entering the research.

Settings and conduct

The research is being done in Tehran at Raz physiotherapy clinic and Mehregan radiology institute. Samples are selected from clients who are eligible to enter the research and have the willingness to participate. The study is single-blind and the colleague who measures the subacromial shoulder-distance by ultrasound before and after the intervention does not know about grouping.

Participants/Inclusion and exclusion criteria

People with subacromial shoulder pain syndrome referred to Raz Physiotherapy Center in 2021-2022 except for those with heart problems, injuries such as fractures, dislocations or trauma

Intervention groups

The intervention includes performing physical therapy on the painful shoulder. In the intervention group, dry needling is added to this treatment and at the end of the session, a dry needle is applied to the scapular levator muscles, rhomboids, as well as the active trigger points found in the first, third, fifth, seventh, and ninth sessions.

Main outcome variables

Shoulder Pain; Shoulder Disability; Shoulder Subacromial Distance

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210614051583N1**

Registration date: **2021-08-20, 1400/05/29**

Registration timing: **registered_while_recruiting**

Last update: **2021-08-20, 1400/05/29**

Update count: **0**

Registration date

2021-08-20, 1400/05/29

Registrant information

Name

Jamshid Mohammadiasl

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 4497 4770

Email address

mohammadi_pt@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-05-22, 1400/03/01

Expected recruitment end date

2022-05-22, 1401/03/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Effect of Dry Needle Intervention on AcromioHumeral Distance and Shoulder Pain and Disability in Patient with Subacromial Pain Syndrome.

Public title

The Effect of Dry Needling on Shoulder Pain and AcromioHumeral Distance

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

People with subacromial shoulder pain syndrome

Decreased subacromial space

Exclusion criteria:

History of fractures and dislocations in the scapula and

shoulder area History of scapula and shoulder surgery

Neurological symptoms in the upper extremities such as

sensory and motor disorders Frozen shoulder and severe

neck pain Congenital skeletal abnormalities

Inflammatory joint disease such as rheumatoid arthritis

Performing treatments such as dry needling, topical

corticosteroids injection, PRP and ozone therapy during

the last 3 months Fear of needles and taking

Anticoagulant for dry needle group

Age

From 30 years old to 50 years old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 25

Randomization (investigator's opinion)

Not randomized

Randomization description

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

Research Ethic Committee of University of Social Welfare and Rehabilitation Science

Street address

No. 18, Shafagh Alley, Hajizadeh St. West Payambar St., Dist.5

City

Tehran

Province

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Postal code

1471755486

Approval date

2021-06-19, 1400/03/29

Ethics committee reference number

IR.USWR.REC.1400.062

Health conditions studied

1

Description of health condition studied

Shoulder Subacromial Pain Syndrome

ICD-10 code

M25.51

ICD-10 code description

Pain in shoulder

Primary outcomes

1

Description

shoulder pain

Timepoint

Before the intervention, after the end of the intervention and 3 months after the end of the intervention

Method of measurement

Visual Analogue Scale

2

Description

Shoulder disability

Timepoint

Before the intervention, after the end of the intervention and 3 months after the end of the intervention

Method of measurement

Shoulder Pain And Disability Index

3

Description

Upper extremity disability

Timepoint

Before the intervention, after the end of the intervention and 3 months after the end of the intervention

Method of measurement

The Disabilities of the Arm, Shoulder and Hand Score (QuickDash).

4

Description

Acromiohumeral Distance

Timepoint

Before the intervention, after the end of the intervention and 3 months after the end of the intervention

Method of measurement

Sonography

Secondary outcomes

empty

Intervention groups

1

Description

Control group: Physiotherapy is performed on the painful shoulder. Physiotherapy treatment modalities include TENS, Ultrasound, and Infrared radiation. These devices include TENS Model 62L and Ultrasound Model 215A provided by Novin Medical Engineering Company. Passive, active and resistance exercises are performed for 25 minutes to increase range of motion, reduce pain and strengthen of the Serratus Anterior, Lower and Middle Trapezius, Pectoralis Major, Latissimus Dorsi, Teres Major, Deltoid, Supraspinatus, Infraspinatus, Teres Minor muscles.

Category

Rehabilitation

2

Description

Intervention group: In the intervention group, dry needling is added to physiotherapy treatment and at the end of the physiotherapy session, dry needling intervention is applied to the Levator Scapula muscles, Rhomboids as well as active trigger points found in the first, third, fifth, seventh and ninth sessions.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Raz Physiotherapy institute

Full name of responsible person

Jamshid Mohammadiasl

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No. 18, Shafaq Alley, Hajizadeh St., West Payambar St., District 5

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mohammadi_pt@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

University of social welfare and rehabilitation sciences

Full name of responsible person

Dr. Hamidreza Khoramkhorshid

Street address

Kodakyar Alley., Daneshjo Blvd., Evin

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1985713834

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Email

rd@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

Jamshid Mohammadiasl

Position

PhD candidate

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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Person responsible for scientific inquiries

Contact

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Full name of responsible person

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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

Part of the data, such as information about the main outcome, can be shared.

When the data will become available and for how long

Access period starts 6 months after the results are published

To whom data/document is available

It will be available only to researchers working in academic and scientific institutions

Under which criteria data/document could be used

Scientific research

From where data/document is obtainable

mohammadi_pt@yahoo.com

What processes are involved for a request to access data/document

One month after receiving the email

Comments