

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 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

Tehran

##### 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

##### Street address

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

##### City

Tehran

##### Province

Tehran

##### Postal code

1471755741

##### Phone

+98 21 4403 6121

##### Email

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

##### City

Tehran

##### Province

Tehran

##### Postal code

1985713834

##### Phone

+98 21 7173 2822

##### 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

##### Street address

No. 18, Shafagh Avenue, hajizadeh St., East Payambar St., Dist.5, Tehran

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##### Email

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## Person responsible for scientific 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 updating data

### Contact

**Name of organization / entity**

University of social welfare and rehabilitation sciences

**Full name of responsible person**

Jamshid Mohammadiasl

**Position**

PhD candidate

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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**