

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

Comparison of the immediate effect of passive static stretching and post isometric relaxation techniques on the pain and upper trapezius muscle stiffness in people with chronic nonspecific neck pain using sonoelastography

Protocol summary

Study aim

Comparison of the immediate effect of passive static stretching and post isometric relaxation techniques on pain and upper trapezius muscle stiffness in people with chronic nonspecific neck pain using sonoelastography

Design

Double blind and block randomised trial with two parallel groups. The first group is the control group which is a static passive stretch for upper trapezius muscle, second group is the intervention group, which is a post isometric relaxation technique.

Settings and conduct

In initiation, the end of treatment, outcomes are evaluated by sono-elastography, Visual analog scale (VAS) & questionnaire. According to the subject's group, static passive stretch/ post isometric relaxation technique for upper trapezius muscle is performed at the sonography ward of Golestan educational hospital, Ahvaz for 1 session. Participants and outcomes assessor will be blind to intervention type and grouping.

Participants/Inclusion and exclusion criteria

Inclusion: 1. 18-50 years, 2. Discomfort sense in the upper trapezius muscle, 3. Neck pain for the three months ago, 4. Neck disability questionnaire score more than 5.

Intervention groups

Control group: upper trapezius muscle static passive stretch, Intervention group: upper trapezius muscle Post isometric relaxation technique.

Main outcome variables

Upper trapezius muscle stiffness

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20181216042008N2**

Registration date: **2020-10-10, 1399/07/19**

Registration timing: **prospective**

Last update: **2020-10-10, 1399/07/19**

Update count: **0**

Registration date

2020-10-10, 1399/07/19

Registrant information

Name

Khadijeh Kazemi

Name of organization / entity

Country

Iran (Islamic Republic of)

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+98 11 4426 1551

Email address

kazemi.kh@ajums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-10-22, 1399/08/01

Expected recruitment end date

2021-01-20, 1399/11/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the immediate effect of passive static stretching and post isometric relaxation techniques on

the pain and upper trapezius muscle stiffness in people with chronic nonspecific neck pain using sonoelastography

Public title

Upper trapezius muscle elastography in neck pain

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Discomfort sense in upper trapezius muscle Neck pain for the three months ago Neck disability questionnaire score more than five

Exclusion criteria:

Neurological and traumatic disorders Upper trapezius muscle open wound Shoulder joint disorder Shoulder and neck surgery Taking muscle relaxant drugs and rehabilitation therapy

Age

From **18 years** old to **50 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant
- Outcome assessor

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

For an equal number of samples in both groups, randomization is a block randomization method. The tool used in this method is "Random allocation software". In this software; the random sequence is determined by specifying the number of groups(2 groups), the type of groups (intervention and control), and the sample size.

Blinding (investigator's opinion)

Double blinded

Blinding description

Participants will not be aware of the allocation of study groups. Also, the sonography specialist, as an outcome assessor, will not be aware of the type of interventions and grouping of participants.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Ahvaz Jundishaur University of Medical Science

Street address

physiotherapy department, Rehabilitation school, Ahvaz Jundishapur University of Medical Sciences, Golestan Highway

City

Ahvaz

Province

Khuzestan

Postal code

6135715794

Approval date

2020-09-26, 1399/07/05

Ethics committee reference number

IR.AJUMS.REC.1399.489

Health conditions studied

1

Description of health condition studied

Chronic non-specific neck pain

ICD-10 code

G89.4

ICD-10 code description

Chronic pain syndrome

Primary outcomes

1

Description

Upper trapezius stiffness

Timepoint

Before and immediately after treatment

Method of measurement

By Elastography Mode of sonography device

Secondary outcomes

1

Description

Pain

Timepoint

Before and immediately after treatment

Method of measurement

Using Visual analog scale(VAS)

2

Description

Functional disability

Timepoint

Before and immediately after treatment

Method of measurement

By Neck disability index(NDI) questionnaire

Intervention groups

1

Description

Control group: The subject sits on a chair and the physiotherapist stands behind it. The physiotherapist asks the subject to hold the edge of the chair to prevent from ipsilateral shoulder moving. Then, subject's neck is bends to forward and sideways slowly in a pain-free range of movement and rotate to opposite side by physiotherapist. This condition is maintained for 60 seconds and will be repeated 3 times. The break between repetitions is 30 seconds.

Category

Rehabilitation

2

Description

Intervention group: The subject sits on a chair and the physiotherapist stands behind it. The physiotherapist asks the subject to hold the edge of the chair to prevent from ipsilateral shoulder moving. Then, subject's neck is bends to forward and sideways slowly in a pain-free range of movement and rotate to opposite side by physiotherapist. Next, The subject is asked to bend his or her head toward the involved side. While performing this exercise, the physiotherapist applies a small amount of resistance to his or her head and this resistance is maintained for 10 seconds. Then rest. Rest time is 30 seconds. This manual treatment will be repeated 3 times.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

MRI center of Golestan hospital

Full name of responsible person

Gholam-Hossein Nassadj

Street address

MRI center, Golestan Hospital, Farvardin Blvd

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Ahvaz University of Medical Sciences

Full name of responsible person

Mohammad Badavi

Street address

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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

Ahvaz 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

Ahvaz University of Medical Sciences

Full name of responsible person

Gholam-hossein Nassadj

Position

Associate professor

Latest degree

Ph.D.

Other areas of specialty/work

Physiotherapy

Street address

Physiotherapy Department, Rehabilitation School,
Ahvaz Jundishapur University of Medical Sciences,
Golestan Highway

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Email

Person responsible for scientific inquiries

Contact

Name of organization / entity

Ahvaz University of Medical Sciences

Full name of responsible person

Khadijeh Kazemi

Position

Ph.D., Candidate of physiotherapy

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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Position

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Latest degree

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Other areas of specialty/work

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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

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is 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

Yes - There is a plan to make this available

Analytic Code

Not applicable

Data Dictionary

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

Title and more details about the data/document

Only part of the data, such as the original outcome information, the study protocol and statistical analysis can be shared.

When the data will become available and for how long

6 months after results publish

To whom data/document is available

Data will only be available to researchers working in academic and scientific institutes.

Under which criteria data/document could be used

If the research plan is intended to apply the therapeutic exercises used or the variables studied are similar to this study.

From where data/document is obtainable

executor of plan "Dr.Gholamhossein nassadj". E-mail: nassadj@yahoo.com

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

By sending an email with a full explanation of the reason for requesting the documentation and the purpose of having it.

Comments