Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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 1session. 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 month 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

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Iran (Islamic Republic of)

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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 elastogeraphy 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
Khouzestan
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 diasbility
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
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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

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

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Person responsible for scientific inquiries

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Position
Ph.D., Candidate of physiotherapy

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Master

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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