Clinical Trial Protocol
Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of the effect of scapulothoracic and upper thoracic mobilization and cervical manual therapy techniques in patients with chronic neck pain and scapula dyskynesia

Protocol summary

Study aim

The present study is designed to compare of the effect of of scapulothoracic, upper thoracic mobilization, and cervical manual therapy techniques in patients with chronic neck pain and scapula dyskynesia.

Design

A clinical trial with a control group, double-blind, randomized, is performed on 80 patients. Simple randomization is used for randomization.

Settings and conduct

This study is being conducted in centers affiliated with Kerman University of Medical Sciences. Patients with neck pain associated with scapular dyskinesia are divided into three groups: control, thoracic mobilization, and manual therapy of the neck based on simple randomization. The two-blind study will be conducted in such a way that people are assigned to groups and patients are evaluated by people who are unaware.

Participants/Inclusion and exclusion criteria

Patients with neck pain and shoulder pain manifestations in both sexes aged 25-50 years are included in the study. In addition, subjects were included if they had at least one active or latent trigger point in each of the neck muscles. Patients with a history of trauma or surgery to the neck or shoulder, cervical radiculopathy, and those with shoulder-related pathologies such as shoulder impingement syndrome, frozen shoulder, shoulder instability, or rotator cuff tear were also excluded from the study.

Intervention groups

Mobilization techniques: Maitland mobilization with grades 3 and 4 is applied to the involved vertebra. They also receive 6 sessions of scapular movement for two weeks. Manual therapy technique of the neck: Soft tissue release is a position that is performed to reduce local muscle tightness 3 sessions per week for 2 weeks. Control group: After determining the involved points, the therapist applies a soft and superficial massage to the involved muscles.

Main outcome variables

1. Pain intensity 2. Disability index 3.Cervical range of motion

General information

Reason for update

Acronym

chronic neck pain and scapula dyskynesia

IRCT registration information

IRCT registration number: **IRCT20240211060958N4**
Registration date: **2025-07-07, 1404/04/16**
Registration timing: **prospective**

Last update: **2025-07-07, 1404/04/16**
Update count: **0**

Registration date

2025-07-07, 1404/04/16

Registrant information

Name

tahereh rezaeian

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 34 3132 5367

Email address

tahere.rezaiyan@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2025-07-28, 1404/05/06

Expected recruitment end date

2025-12-21, 1404/09/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of scapulothoracic and upper thoracic mobilization and cervical manual therapy techniques in patients with chronic neck pain and scapula dyskynesia

Public title

Comparison of the effect of scapulothoracic and upper thoracic mobilization and cervical manual therapy techniques in patients with Comparison of the effect of scapulothoracic and upper thoracic mobilization and cervical manual therapy techniques in patients with chronic neck pain and scapula dyskynesia

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

All participants are aged from 25 to 50 years Neck pain and scapular dyskynesia are diagnosed with confirmation from a specialist. Complaints of neck pain, and shoulder pain more than 3 months before starting study. The present of trigger points (latent or active) in the neck muscles such as levator scapula, SCM, scalen, suboccipital, and upper trapezius. Having neck disability index is 5 or more than 5.

Exclusion criteria:

After any spinal surgery or truma, and neck radiculopathy. Severe systematic diseases. Undergoing a treatment program for neck or shoulder muscles at least 6 months prior to the study Consumption of stimulants (caffeine and nicotine) or painkillers at least 8 hours before the study or people who have contraindications to manual therapy Shoulder-related pathologies such as shoulder impingement syndrome, frozen shoulder, shoulder instability, or rotator cuff tear

Age

From **25 years** old to **50 years** old

Gender

Both

Phase

3

Groups that have been masked

- Participant
- Investigator

Sample size

Target sample size: **60**

More than 1 sample in each individual

Number of samples in each individual: **20**

20 subjects per group

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomization: A table of random numbers is used. Participants are given a number and using the table of random numbers. Therapist randomly starts from a table point in the row or column direction. The therapist can close his eyes and choose a point.

Blinding (investigator's opinion)

Double blinded

Blinding description

Double-blind study will be done, in this way, the allocation of people to the groups and the assessment of patients are done by people who are unaware of the status of the grouping of patients. Treatment is provided by a specialist physiotherapist and evaluated by a collaborator.

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of the kerman University of Medical Sciences

Street address

Kerman University of Medical Sciences, Haft Bagh Square, Kerman Town

City

Kerman

Province

Kerman

Postal code

7616913555

Approval date

2024-12-23, 1403/10/03

Ethics committee reference number

IR.KMU.REC.1403.464

Health conditions studied

1

Description of health condition studied

Cervical pain

ICD-10 code

G54.2

ICD-10 code description

Cervical disorders

Primary outcomes

1

Description

Pain intensity

Timepoint
Before, After and 1month follow up
Method of measurement
Visual analog scale

Secondary outcomes

1

Description
Functional index
Timepoint
Before, After and 1month follow up
Method of measurement
Neck Disability Index and Disabilities of Arm, Shoulder and Hand questionnaires

2

Description
Cervical range of motion
Timepoint
Before, after and 1month follow up
Method of measurement
Goniometer

Intervention groups

1

Description
Intervention group: Scapulothoracic and thoracic joint mobilization. Maitland mobilization technique with grades 3 and 4 is applied to the involved vertebra and scapula. The techniques are applied in 10 sets of 10 repetitions with 30 seconds of rest between each set. Each movement was held for 5 seconds and there was a 3 second rest between each movement in each set. They also received 6 sessions of scapular mobilization over a two-week period.
Category
Rehabilitation

2

Description
Intervention group: Manual therapy of the neck. In this group, soft tissue release and muscle stretching of the neck muscles (levator scapulae, sternocleidomastoid, scalene, suboccipital, and upper trapezius) is performed. Soft tissue release is a posture used to reduce local muscle tightness. Patients in this group received each technique with 5 repetitions, 20 seconds hold, once a day for 6 sessions.
Category
Rehabilitation

3

Description
Control group: While the patient is side lying position, the therapist applies soft and superficial massage on the involved muscles. The fingertips of each therapist's hand are placed in contact with the related muscles and a surface massage is performed. The number of sessions is the same as the intervention group.
Category
Placebo

Recruitment centers

1

Recruitment center
Name of recruitment center
Medical centers affiliated to Kerman University of Medical Sciences
Full name of responsible person
Tahereh Rezaian
Street address
Kerman University of Medical Sciences, Haft Bagh Square, Kerman Town
City
Kerman
Province
Kerman
Postal code
7616913555
Phone
+98 34 3212 4962
Email
tahere.rezaiyan@gmail.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Kerman University of Medical Sciences
Full name of responsible person
Hamid Sharifi
Street address
Kerman University of Medical Sciences, Haft Bagh Square, Kerman Town
City
Kerman
Province
Kerman
Postal code
7616913555
Phone
+98 34 3132 5700
Email
sharifihami@gmail.com
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Kerman 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
Kerman University of Medical Sciences
Full name of responsible person
tahereh rezaeian
Position
Assistant Professor of Kerman University of Medical Sciences
Latest degree
Ph.D.
Other areas of specialty/work
Physiotherapy
Street address
Kerman University of Medical Sciences, Haft Bagh Square, Kerman Town
City
Kerman
Province
Kerman
Postal code
7616913555
Phone
+98 34 3132 5700
Email
tahere.rezaiyan@gmail.com

Person responsible for scientific inquiries

Contact
Name of organization / entity
Kerman University of Medical Sciences
Full name of responsible person
tahereh rezaeian
Position
Assistant Professor of Kerman University of Medical Sciences
Latest degree
Ph.D.
Other areas of specialty/work
Physiotherapy
Street address
Kerman University of Medical Sciences, Haft Bagh Square, Kerman Town
City
Kerman
Province
Kerman
Postal code
7616913555
Phone
+98 34 3132 5700
Email
tahere.rezaiyan@gmail.com

Person responsible for updating data

Contact
Name of organization / entity
Kerman University of Medical Sciences
Full name of responsible person
tahereh rezaeian
Position
Assistant Professor of Kerman University of Medical Sciences
Latest degree
Ph.D.
Other areas of specialty/work
Physiotherapy
Street address
Kerman University of Medical Sciences, Haft Bagh Square, Kerman Town
City
Kerman
Province
Kerman
Postal code
7616913555
Phone
+98 34 3132 5700
Email
tahere.rezaiyan@gmail.com

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
Some of the data, such as information about the consequences, can be shared.
When the data will become available and for how long
Starting the access period: 6 months after publition the results.
To whom data/document is available
Researchers working in academic institutions.
Under which criteria data/document could be used
Only statistical analyzes can be used to find treatment for improvement of patients.
From where data/document is obtainable

Applicants can be guided by email to the authors(tahere.rezaiyan@gmail.com).

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

First, they will email the authors of the study and we Will be answered within a week.

Comments