

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 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

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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	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.
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 dyskinesia 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 dyskinesia	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
Purpose Treatment Inclusion/Exclusion criteria Inclusion criteria: All participants are aged from 25 to 50 years Neck pain and scapular dyskinesia 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	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
Age From 25 years old to 50 years old Gender Both Phase 3 Groups that have been masked - Participant - Investigator	Health conditions studied 1 Description of health condition studied Cervical pain ICD-10 code G54.2 ICD-10 code description Cervical disorders
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	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

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Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

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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

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

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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

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 publication the results.

To whom data/document is available

Researchers working in academic institutions.

Under which criteria data/document could be used

Only statistical analyses 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