Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparative Effects of Comprehensive Corrective Exercises versus Muscle Energy techniques in Patients with Upper Cross Syndrome:A Randomized Controlled Trial

Protocol summary

Study aim

Compare the Effects of Comprehensive Corrective Exercises veraus Muscle Energy techniques in patients with Upper Cross Syndrome

Design

Diagnosed patients of UCS will be randomly assigned. Participants were randomized using concealed allocation through opening sealed envelops and card inside envelop indicated the group into which participants was randomly allocated. After randomization participants took part in baseline assessment process, and then groups receive the interventions for eight weeks. All measurements were repeated after ending the interventions. Finally follow up assessment was performed after 4-week detraining period. The participants consisted of 52 men and women aged 20-35 years with UCS. The duration of exercise protocol was eight weeks and three sessions per week, and each session was about an hour. All exercises were performed under supervision. Group A: Follow Muscle energy technique with. Routine physical Therapy Group-B: Follow Comprehensive Corrective Exercises with Routine physical Therapy

Settings and conduct

Federal Medical and Rehabilitation Centre Lahore. Single blinded study.Participants are blinded.

Participants/Inclusion and exclusion criteria

Patients with UCS and neck pain history of 4-12 weeks are included. Any other impairement, cervical Surgery and history of trauma excluded.

Intervention groups

The duration of exercise protocol was eight weeks and three sessions per week, and each session was about an hour. All exercises were performed under supervision. Group A: Follow Muscle energy technique with. Routine physical Therapy Group-B: Follow Comprehensive Corrective Exercises with Routine physical Therapy

Main outcome variables

Pain will be measured by Visual Analogue scale (VAS)
Disability will be measured by Neck Disability Index (NDI)

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210730052025N1**
Registration date: **2021-10-08, 1400/07/16**
Registration timing: **retrospective**

Last update: **2021-10-08, 1400/07/16**
Update count: **0**

Registration date

2021-10-08, 1400/07/16

Registrant information

Name

Hafsa Azam

Name of organization / entity

The University of Lahore

Country

Pakistan

Phone

+92 44 2522066

Email address

pptm02191008@student.uol.edu.pk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-07-31, 1400/05/09

Expected recruitment end date

2021-08-25, 1400/06/03

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparative Effects of Comprehensive Corrective Exercises versus Muscle Energy techniques in Patients with Upper Cross Syndrome:A Randomized Controlled Trial

Public title

Effects of Corrective Exercises Versus Muscle energy techniques in treatment of Upper Cross Syndrome.

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Neck pain history of 4-12 weeks Both Gender Age between 20 and 35 years

Exclusion criteria:

Any other spine surgery or trauma

Age

From **20 years** old to **35 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **52**

Randomization (investigator's opinion)

Randomized

Randomization description

Participants were randomized using concealed allocation through opening sealed envelops and card inside envelop indicated the group into which participants was randomly allocated.

Blinding (investigator's opinion)

Single blinded

Blinding description

Only the assessor is unaware of the treatment the patients receive.It is advisable that the assessor should not belong to the team performing treatment and therefore not know whether the patient received the intervention 1 or intervention 2.

Placebo

Not used

Assignment

Parallel

Other design features

The participants consisted of 52 men and women aged 20-35 years with the UCS.The duration of exercise protocol was eight weeks and three sessions per week, and each session was about an hour. All exercises were performed under supervision

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

"Ethics Committee of University Of Lahore"

Street address

159A opf phase 1 Lahore

City

Lahore

Postal code

5300

Approval date

2021-09-18, 1400/06/27

Ethics committee reference number

IRB-UOL-FAHS/890-III/2021

Health conditions studied

1

Description of health condition studied

Neck pain or Upper Cross Syndrome

ICD-10 code

G71.8

ICD-10 code description

Other primary disorders of muscles

Primary outcomes

1

Description

Pain, Disability

Timepoint

Before Intervention,after intervention(8 week) and 4 week after detraining period.

Method of measurement

Visual Analogue scale to measure pain and Neck disability Index to measure disability.

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group 1: Follow Muscle energy technique with Routine physical Therapy. Muscle energy technique will be applied to subjects' cervical spine. The cervical spine brought to the barrier of motion in each plane i.e. flexion/extension, lateral bending and rotation. Then subjects were asked to push their heads into the direction opposite that of the barrier. The therapist

provided isometric resistance for 3-5 seconds, after which the subjects relaxed their muscles completely and the therapist applied stretch. Three to five repetitions performed.Cervical segmental mobilisation was performed slowly, with varied rhythm and speed. Three sets of grade I-II mobilisation (posterioanterior) with 8-10 repetition for 2- 3 minutes in resting position will be given.

Category

Rehabilitation

2

Description

Intervention group 2:Follow Comprehensive Corrective Exercises with Routine physical Therapy. To correct musculoskeletal malalignment by functional approach such as CCEP.Comprehensive corrective exercise: Each exercise session begins with 10 min of warm- up activity and ends with 5 min of cool-down. Selected exercises are designed in three phases:Initial Phase: The initial phase duration is 2 weeks and the exercises will be performed for seven sets of 10-s hold to ten sets of 15-s hold.Improvement Phase: Therefore, during this phase Thera-Bands, weights, and training balls will be used.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center
Federal Medical and Rehabilitation Centre Lahore

Full name of responsible person
Dr Bushra Jabeen

Street address
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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
University Of Lahore

Full name of responsible person
Hafsa Azam

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Email
Info@Uol.edu.pk

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?
Yes

Title of funding source
University Of Lahore

Proportion provided by this source
100

Public or private sector
Private

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
The University of Lahore

Full name of responsible person
Hafsa Azam

Position
Student

Latest degree
Bachelor

Other areas of specialty/work
Physiotherapy

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
No - There is not a plan to make this available
Justification/reason for indecision/not sharing IPD
I think this will not risk the patient's health
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Undecided - It is not yet known if there will be 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
Undecided - It is not yet known if there will be 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
Demographic data family history
When the data will become available and for how long
At baseline and available till end
To whom data/document is available
People working in the research
Under which criteria data/document could be used
Researcher and supervisir will review it
From where data/document is obtainable
ahfsa6211@gmail.com
What processes are involved for a request to access data/document
It will be decide in further mmeeting
Comments
No comments