Clinical Trial Protocol
Iranian Registry of Clinical Trials

10 Jun 2026

Effects of Active Release Technique and Active Isolated Stretching on the muscles of upper cross syndrome

Protocol summary

Study aim
To determine the effects of Active Release Technique and Active Isolated Stretching on the muscles of upper cross syndrome

Design
two groups,single blinded randomized controlled trial

Settings and conduct
SETTING The study will be conducted in Max rehab and other physiotherapy clinic

Participants/Inclusion and exclusion criteria
Inclusion Criteria • Patients from both genders • patients of age 20 to 40 . • patients with a score of 4 or more on numerical pain rating scale (NPRS). • Cranio-vertebral angle measured less than or equal to 50 degree. Exclusion Criteria Patients were excluded if they exhibited; • any inflammatory arthritis including Rheumatoid arthritis, Ankylosing spondylitis, • cervical spine surgery, • cervical spine trauma, • cervical spine instability

Intervention groups
Group A: active release technique Group B: active Isolated Stretching

Main outcome variables
Muscle length measurement, Forward head posture, Function, Range of Motion

General information

Reason for update

Acronym
UCS,AIS,ART

IRCT registration information
IRCT registration number: **IRCT20200703047993N1**
Registration date: **2020-09-28, 1399/07/07**
Registration timing: **prospective**

Last update: **2020-09-28, 1399/07/07**
Update count: **0**

Registration date
2020-09-28, 1399/07/07

Registrant information

Name
Fizza Ali Syed

Name of organization / entity
Riphah International University

Country
Pakistan

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+92 42 36297030

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Recruitment status
Not yet recruiting

Funding source

Expected recruitment start date
2641-06-21, 2020/03/31

Expected recruitment end date
2641-12-20, 2020/09/29

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Effects of Active Release Technique and Active Isolated Stretching on the muscles of upper cross syndrome

Public title
Effects of Active Release Technique and Active Isolated Stretching on the muscles of upper cross syndrome

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
• Patients from both genders • patients of age 20 to 40

years • patients with a score of 4 or more on numerical pain rating scale (NPRS). • Cranio-vertebral angle measured less than or equal to 50 degree.

Exclusion criteria:

• any inflammatory arthritis including Rheumatoid arthritis, Ankylosing spondylitis, ,• cervical spine surgery, ,• cervical spine trauma, , • cervical spine instability

Age

From **20 years** old to **40 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **34**

Randomization (investigator's opinion)

Randomized

Randomization description

, Once the above mentioned inclusion and exclusion criteria will be taken into account, potential participants will be considered. They will be requested to participate in the study. Written informed consent will be taken from Riphah ethical committee. Each participant will be requested to draw either number one or number two from a box. Number one will be allocated to Group A and number two will be allocated to group B.

Blinding (investigator's opinion)

Single blinded

Blinding description

Outcome Assessor will be blinded by labeling the participants with different codes.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Secretary ethical review committee, Riphah College of Rehabilitation and Allied health Sciences

Street address

28-M, Quaid-e-Azam Industrial Estate, Kot Lakhpat, Lahore.

City

Lahore

Postal code

54000

Approval date

2641-04-27, 2020/02/07

Ethics committee reference number

1046

Health conditions studied

1

Description of health condition studied

upper cross syndrome

ICD-10 code

M62.9

ICD-10 code description

Disorder of muscle, unspecified

Primary outcomes

1

Description

• Muscle length measurement

Timepoint

baseline, before and after treatment session, 3 sessions per week on alternate days for a period of 16 sessions.

Method of measurement

Vernier calipers and measuring tape

2

Description

• Cervical ROM

Timepoint

baseline, before and after treatment session, 3 sessions per week on alternate days for a period of 16 sessions.

Method of measurement

Universal Goniometer.

Secondary outcomes

1

Description

function

Timepoint

baseline, before and after treatment session, 3 sessions per week on alternate days for a period of 16 sessions.

Method of measurement

Neck disability index

2

Description

Forward head posture

Timepoint

baseline, before and after treatment session, 3 sessions per week on alternate days for a period of 16 sessions.

Method of measurement

• APECS app

Intervention groups

1

Description

Intervention group :Group A: active release technique. The patients will complete the questionnaire given to them. The researchers screened the participants for tight musculature by testing. To treat muscle with ART, the therapist puts patient in a position so that the muscle is shortened and then applies hands-on tension. Next, they'll instruct the patient to lengthen while they hold the tension in place. They may apply this combination of tension and motion to several different areas before patient feel the full release. Treatment of active release technique given to subjects in Group A performed by researcher at weekly intervals. subjects received active release technique, 3 sets of 10 repetitions per session 3 sessions per week on alternate days for a period of 16 sessions. Session lasts for 40 minutes, three times a week for 6 weeks. The pre and post visit will involve: The researcher will reassess the patient, After the complete session patients will fill the questionnaire again. The researcher will measure the muscle length and compare with the pre-limanary measurement taken.

Category

Treatment - Other

2

Description

Intervention group: Group B: active Isolated Stretching. The patients will complete the questionnaire given to them. The researchers screened the participants for tight musculature by testing.• Treatment of active isolated stretching exercise given to Group B. Perform five to 10 repetitions. The process of holding the stretch for 1-2 seconds is repeated 8-10 times for optimal "melting of the fascia". This intervention is applied for 3 times a week for 5 weeks or 16 sessions. Session lasts for 40 minutes, three times a week for 6 weeks. The pre and post visit will involve: The researcher will reassess the patient, After the complete session patients will fill the questionnaire again ,The researcher will measure the muscle length and compare with the pre-limanary measurement taken.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Max Rehab

Full name of responsible person
Fizza Ali Syed

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28-M, Quaid-e-Azam Industrial Estate, Kot Lakhpat, Lahore.

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Riphah International University

Full name of responsible person
Rabiya Noor

Street address
28-M, Quaid-e-Azam Industrial Estate, Kot Lakhpat, Lahore.

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Grant name
Educational

Grant code / Reference number
1046

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

Title of funding source
Riphah International University

Proportion provided by this source
15

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
Riphah international university Lahore

Full name of responsible person
Fizza Ali Syed

Position
student

Latest degree
Bachelor

Other areas of specialty/work
Physiotherapy

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

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