

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

26 Jun 2026

### Comparison of the effectiveness of Cervical Translatory Mobilizations with Cervical Stability Training in female patients with Cervicogenic Headache

#### Protocol summary

##### Study aim

To determine the comparative effectiveness of cervical translatory mobilizations with cervical stability training on pain and mobility in female patients with cervicogenic headache.

##### Design

Randomized controlled trial

##### Settings and conduct

SETTING: Orthopedic Department, Mayo Hospital, Lahore. Neurology Department, Mayo Hospital, Lahore. Physiotherapy Department, Mayo Hospital, Lahore. DURATION OF STUDY: Six months after the approval of synopsis

##### Participants/Inclusion and exclusion criteria

Inclusion Criteria: Female patients aged 20-40 years  
Diagnosis of cervicogenic headache  
Positive cervical flexion-rotation test (FRT)  
Exclusion Criteria: Patients previously receiving treatment for underlying pathology. Patients presented with red flag signs for headache. Patients presented with migraine. Patients in whom manual therapy is contraindicated. Patients who are diagnosed with radiculopathy. Patients who are taking analgesics.

##### Intervention groups

GROUP-A: Cervical Translatory Mobilization This group will receive a 10-minute treatment consisting of 30-second series of translatory mobilizations of the upper cervical spine with 10-second rest periods between sets.  
GROUP-B: Cervical Stability Training The Cervical Stability Training consists of three application phases. The first phase will improve muscular coordination and proprioception. The second phase will improve muscular endurance and strength. The final phase will improve muscular strength as well. The intensity of exercise in the third phase will be slightly higher than in the second phase. Based on the exercise tolerance of the patients, all exercises will be repeated 7-10 times during the first

week and 10-15 times during the second week of each phase.

##### Main outcome variables

Pain reduction  
Increasing range of motion  
Reduced disability

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20220518054910N1**  
Registration date: **2023-05-31, 1402/03/10**  
Registration timing: **registered\_while\_recruiting**

Last update: **2023-05-31, 1402/03/10**

Update count: **0**

##### Registration date

2023-05-31, 1402/03/10

##### Registrant information

##### Name

Yasham Afzal

##### Name of organization / entity

King Edward Medical University

##### Country

Pakistan

##### Phone

+92 323 7888180

##### Email address

yashamafzal61@gmail.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2023-03-15, 1401/12/24

##### Expected recruitment end date

2023-07-31, 1402/05/09

**Actual recruitment start date**

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

Comparison of the effectiveness of Cervical Translatory Mobilizations with Cervical Stability Training in female patients with Cervicogenic Headache

**Public title**

COMPARISON OF THE EFFECTIVENESS OF CERVICAL TRANSLATORY MOBILIZATIONS WITH CERVICAL STABILITY TRAINING IN FEMALE PATIENTS WITH CERVICOGENIC HEADACHE: A RANDOMIZED CONTROLLED TRIAL

**Purpose**

Health service research

**Inclusion/Exclusion criteria**

**Inclusion criteria:**

The study will include female patients aged 20-40 years. A diagnosis of cervicogenic headache (pain aggravated by neck movement, sustained position or external pressure, restricted cervical range of motion, and unilateral pain starting in the neck and radiating to the frontotemporal region) Positive cervical flexion-rotation test (FRT)

**Exclusion criteria:**

Patients previously receiving treatment for underlying pathology. Patients presented with red flag signs for headache. Patients presented with migraine. Patients in whom manual therapy is contraindicated. Patients who are diagnosed with radiculopathy. Patients who are taking analgesics.

**Age**

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

**Gender**

Female

**Phase**

N/A

**Groups that have been masked**

- Participant
- Care provider
- Investigator
- Outcome assessor
- Data analyser
- Data and Safety Monitoring Board

**Sample size**

Target sample size: **82**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

All the participants who came to the physiotherapy department were considered and screened for cervicogenic headache with restricted neck movements. 82 patients were allotted to two groups i.e.; group A(CTM) and group B(CST) via a computer-generated randomized list, 41 in each group. Considered the

inclusion and exclusion criteria before concerning them in the study. Informed consent was taken whether they were willing to participate or not in written form.

**Blinding (investigator's opinion)**

Double blinded

**Blinding description**

Participants were allocated to two treatment groups named A and B. None of the participants know which of the two modes of ultrasound has been used on him/her as both modes require the ultrasound machinery and nothing else. The care provider has been giving treatment according to the protocols decided and he/she has no role in measuring the results. The outcome assessor or the investigator is involved in the outcome measurements of both groups and has no role in applying treatment protocols to the patients or the randomization. The data analyzer is involved in the analysis of data only and has no role in randomization, treatment application, or outcome measurement. None of the members of DSMB are involved in the application of randomization, treatment application, outcome measurement, or data analysis.

**Placebo**

Not used

**Assignment**

Parallel

**Other design features**

Parallel groups, single blinded, single setting

**Secondary Ids**

empty

**Ethics committees**

1

**Ethics committee**

**Name of ethics committee**

Advanced Studies and Research Board

**Street address**

Neela Gumbad, New Anarkali, Lahore

**City**

LAHORE

**Postal code**

54000

**Approval date**

2022-04-05, 1401/01/16

**Ethics committee reference number**

2543/KEMU/2022

**Health conditions studied**

1

**Description of health condition studied**

Cervicogenic Headache

**ICD-10 code**

G44

**ICD-10 code description**

Other headache syndromes

## Primary outcomes

### 1

#### Description

Pain

#### Timepoint

Before applying Intervention and at week 3 and week 6 of intervention.

#### Method of measurement

Visual Analogue Scale

### 2

#### Description

Range of Motion (Upper Cervical)

#### Timepoint

Before applying Intervention and at week 3 and week 6 of intervention.

#### Method of measurement

Goniometer

### 3

#### Description

Range of Motion (General Cervical)

#### Timepoint

Before applying Intervention and at week 3 and week 6 of intervention.

#### Method of measurement

Goniometer

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group: Cervical Translatory Mobilizations

#### Category

Rehabilitation

### 2

#### Description

Intervention group: Cervical Stability Training

#### Category

Rehabilitation

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

King Edward Medical University, Mayo Hospital,  
Lahore Pakistan

##### Full name of responsible person

Yasham Afzal

#### Street address

Nila Gumbad Chowk, Neela Gumbad Lahore.

#### City

Lahore

#### Postal code

54000

#### Phone

+92 323 7888180

#### Email

yashamafzal61@gmail.com

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

King Edward Medical University, Mayo Hospital Lahore

##### 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

King Edward Medical University, Mayo Hospital Lahore

#### 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

King Edward Medical University, Mayo Hospital Lahore

##### Full name of responsible person

Yasham Afzal

##### Position

Post Graduate Resident

##### Latest degree

Master

##### Other areas of specialty/work

Physiotherapy

**Street address**

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**Person responsible for scientific inquiries****Contact****Name of organization / entity**

King Edward Medical University, Mayo Hospital Lahore

**Full name of responsible person**

Yasham Afzal

**Position**

Post Graduate Resident

**Latest degree**

Master

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**Person responsible for updating data****Contact****Name of organization / entity**

King Edward Medical University, Mayo Hospital Lahore

**Full name of responsible person**

Yasham Afzal

**Position**

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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**

Data will be shared in the form of Excel and Microsoft Word files.

**When the data will become available and for how long**

6 months after publication

**To whom data/document is available**

Only available for people working in academic institutions

**Under which criteria data/document could be used**

The person responsible for data updates will be reviewing requests for data. Data will be shared through email.

**From where data/document is obtainable**

yashamafzal61@gmail.com

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

Provide full detail of the reason you want to pursue data from my study. Then wait for a max of one month to receive it if the request for data is approved.

**Comments**