

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Comparison of Post Isometric Relaxation and Hold Relax Agonist Contract in improving Pain and Disability in Mechanical Neck Pain

#### Protocol summary

##### Study aim

To compare the effect of post isometric relaxation and hold relax agonist contract in improving pain and disability in mechanical neck pain

##### Design

Randomized clinical trial on 48 individuals (divided equally in two groups), randomization by lottery method, parallel groups, single-blind.

##### Settings and conduct

Ghurki trust and teaching hospital , Zahida welfare hospital . Assessor is blinded.

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: male and female; age range 18 to 45; duration of pain for 3 months; neck pain without radiating to arm; patients with mechanical neck pain diagnosed by orthopedist; pain increased by sustain posture; limitation of rotation and side flexion of neck. Exclusion criteria: history of neck surgery; stenosis; scoliosis; nerve involvement; neck pain radiation to arm; malignancy, infection, inflammatory disorder; shoulder pain

##### Intervention groups

Group- A (Muscle energy technique + supervised & home exercise program (HEP) Group B ( Hold relax agonist contract +supervised + home exercise (HEP)

##### Main outcome variables

pain and disability

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20200514047441N1**

Registration date: **2020-06-15, 1399/03/26**

Registration timing: **registered\_while\_recruiting**

Last update: **2020-06-15, 1399/03/26**

Update count: **0**

##### Registration date

2020-06-15, 1399/03/26

##### Registrant information

###### Name

Aroosa Iqbal

###### Name of organization / entity

Riphah International University,Lahore, Pakistan

###### Country

Pakistan

###### Phone

+92 42 35753538

###### Email address

aroosaiqbal450@gmail.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2019-09-26, 1398/07/04

##### Expected recruitment end date

2020-08-01, 1399/05/11

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparison of Post Isometric Relaxation and Hold Relax Agonist Contract in improving Pain and Disability in Mechanical Neck Pain

##### Public title

comparison of two MET techniques in mechanical neck pain

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

**Inclusion criteria:**

Male and Female age range 18 to 45 Duration of pain 3 months Neck pain without radiating to arm Pain increased by sustain posture Patients having mechanical neck pain diagnosed from orthopedic Limitation of rotation and side flexion of neck

**Exclusion criteria:**

History of neck surgery stenosis Scoliosis Nerve involvement Neck pain radiating to arm Malignancy, infection inflammatory disorder Shoulder pain

**Age**

From **18 years** old to **45 years** old

**Gender**

Both

**Phase**

4

**Groups that have been masked**

- Outcome assessor

**Sample size**

Target sample size: **48**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

Lottery method is used to divide subjects in two groups. A researcher will randomly picks numbers either 1 and 2. 1 will represent the group A ( post isometric relaxation) and 2 will represent group B ( hold relax agonist contract). Subjects will be randomly allocated in two treatment groups

**Blinding (investigator's opinion)**

Single blinded

**Blinding description**

Outcomes assessor is blinded, they do not know about the allocation. A physiotherapist who works as outcome assessor takes pre and post treatment measurements

**Placebo**

Not used

**Assignment**

Parallel

**Other design features**

Randomized clinical trial

**Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

Ethics committee of Riphah International university

**Street address**

near Hajj complex I- 14, Islamabad, Islamabad capital territory

**City**

Islamabad

**Postal code**

46000

**Approval date**

2019-01-09, 1397/10/19

**Ethics committee reference number**

REC/RCRS/20/1027

**Health conditions studied****1****Description of health condition studied**

Neck pain is one of the most common musculoskeletal disorders mostly found in office worker, postural syndrome, anxiety, depression . Excessive forward head and neck flexion for a defined period of time would cause neck pain in healthy people

**ICD-10 code**

M54.2

**ICD-10 code description**

Cervicalgia

**Primary outcomes****1****Description**

neck pain

**Timepoint**

before intervention and after 4 weeks

**Method of measurement**

Visual analogue scale to measure pain

**2****Description**

Improvement of neck disability

**Timepoint**

before intervention and after 4 weeks

**Method of measurement**

Neck disability index scale

**Secondary outcomes**

empty

**Intervention groups****1****Description**

Intervention group 1: Muscle energy technique in form of post isometric relaxation will apply on upper trapezius, levator scapulae, scalene and sternocleidomastiod muscles along with hotpack and Tens. 3 treatment sessions will be given in a week. Initial measurement will be recorded before treatment and outcomes will be measured after 4 weeks through Neck disability index scale and Visual analogue scale.

**Category**

Treatment - Other

## 2

### Description

Intervention group 2: Hold relax agonist contract will be performed on upper trapezius, levator scapulae, scalene and sternocleidomastoid muscles along with hot pack and Tens. 3 treatment sessions will be given in a week. Initial measurement will be recorded before treatment and outcomes will be measured after 4 weeks through Neck disability index scale and Visual analogue scale.

### Category

Treatment - Other

## Recruitment centers

### 1

#### Recruitment center

**Name of recruitment center**

Ghurki Trust Teaching Hospital

**Full name of responsible person**

Aroosa Iqbal

**Street address**

H no 12 St no 1 Sami Town Lhr

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Lahore

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### 2

#### Recruitment center

**Name of recruitment center**

Zahida welfare hospital

**Full name of responsible person**

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## Sponsors / Funding sources

### 1

#### Sponsor

**Name of organization / entity**

self

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**Grant name****Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

No

**Title of funding source**

self

**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**

Other

## Person responsible for general inquiries

#### Contact

**Name of organization / entity**

Riphah International university

**Full name of responsible person**

Aroosa Iqbal

**Position**

student

**Latest degree**

Bachelor

**Other areas of specialty/work**

Physiotherapy

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## Person responsible for updating data

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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