

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

Effects of Post Isometric Relaxation and Bruegger's Exercises on Pain, Range of Motion and Disability in patients with Mechanical Neck Pain

Protocol summary

Study aim

To compare the effects of post isometric relaxation and bruegger's exercises on pain, Range of motion and disability in patients with mechanical neck pain .

Design

It will Single blinded randomized clinical trial with parallel group design. 24 Participants will be allocated to two groups equally by random computer number generator

Settings and conduct

It will be conducted at Arif memorial teaching hospital. Outcome assessor will be kept blind.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Both male and female patients age ranged from 20-40 years and suffering from Mechanical neck pain for at least three months Exclusion criteria: any orthopedic or neurological condition surgery in the cervical spine or shoulder Patients having Inflammation, malignancy and metabolic disorder will be excluded Patients with neck pain radiating into arms and upper extremity will be excluded from this study Neck pain associated with headache and facial pain, recent surgery, Vertebrobasilar insufficiency (VBI) positive will be exclusion criteria: History of recent trauma and fractures of cervical spine will be excluded

Intervention groups

Group A: Post isometric relaxation: Total 20 sessions will be given to each patient in 4 weeks with 3 sessions per week Group B: Bruegger's exercise: Total 20 sessions will be given to each patient in 4 weeks with 3 sessions per week Baseline Treatment: Baseline treatment will be given as common treatment to both groups. It include Hot pack for 10-15 minutes

Main outcome variables

Pain: Numeric Pain Rating Scale (NPRS) ROM: Universal Goniometer Disability: Neck Disability Index (NDI)

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220701055331N2**

Registration date: **2024-06-11, 1403/03/22**

Registration timing: **prospective**

Last update: **2024-06-11, 1403/03/22**

Update count: **0**

Registration date

2024-06-11, 1403/03/22

Registrant information

Name

Ifra Zulqarnain Awan

Name of organization / entity

Rashid Latif Medical College

Country

Pakistan

Phone

+92 333 4975431

Email address

ifra.awan@rlmc.edu.pk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-06-15, 1403/03/26

Expected recruitment end date

2024-11-15, 1403/08/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of Post Isometric Relaxation and Bruegger's Exercises on Pain, Range of Motion and Disability in

patients with Mechanical Neck Pain	
Public title	Effects of post isometric relaxation and Bruegger's exercises on pain, range of motion and disability in patients with mechanical neck pain
Purpose	Treatment
Inclusion/Exclusion criteria	
Inclusion criteria:	Both male and female patients Age ranged from 20-40 years and suffering from Mechanical neck pain for at least three months
Exclusion criteria:	Any orthopedic or neurological condition surgery in the cervical spine or shoulder Patients having Inflammation, malignancy and metabolic disorder will be excluded Patients with neck pain radiating into arms and upper extremity will be excluded from this study Neck pain associated with headache and facial pain, recent surgery, Vertebrobasilar insufficiency (VBI) positive will be excluded History of recent trauma and fractures of cervical spine will be excluded
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: 24
Randomization (investigator's opinion)	Randomized
Randomization description	Random computer number generator will be used for randomization. Assign unique identification numbers to participants, then use a reliable software tool to generate a list of random numbers. Match these numbers to participant IDs and allocate individuals to different study groups based on the sorted random numbers. Ensure that the randomization process is concealed and documented for transparency and integrity.
Blinding (investigator's opinion)	Single blinded
Blinding description	Single blinding in a study involves keeping the outcome assessor blind to the intervention received by the participants. This helps to minimize bias in assessing the study outcomes. To achieve single blinding, the outcome assessor is not informed about the treatment allocation of the participants and remains unaware of which group received the intervention being studied.
Placebo	Not used
Assignment	Parallel
Other design features	

Secondary Ids	empty
Ethics committees	
1	
Ethics committee	
Name of ethics committee	Institutional Review Board of Rashid Latif Medical College, Lahore.
Street address	35-KM Ferozepur Road Lahore
City	Lahore
Postal code	54600
Approval date	2023-12-25, 1402/10/04
Ethics committee reference number	IRB/2023/133
Health conditions studied	
1	
Description of health condition studied	Mechanical neck pain
ICD-10 code	
ICD-10 code description	
Primary outcomes	
1	
Description	Pain
Timepoint	Before intervention and 4 weeks after intervention
Method of measurement	Numeric pain rating scale to measure pain
2	
Description	Range of motion
Timepoint	Before intervention and 4 weeks after intervention
Method of measurement	Range of motion will be measured by Universal goniometer
3	
Description	Disability
Timepoint	before intervention and 4 weeks after intervention
Method of measurement	Neck disability index (NDI) will be used to measure disability

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group A: Post isometric relaxation exercise:
Total 20 sessions will be given to each patient in 4 weeks
with 3 sessions per week.

Category

Rehabilitation

2

Description

Intervention group B: Bruegger's exercise: Total 20
sessions will be given to each patient in 4 weeks with 3
sessions per week.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Arif Memorial Teaching Hospital

Full name of responsible person

Dr. Ifra Zulqarnain Awan

Street address

35-km ferozepur road Lahore

City

Lahore

Postal code

54600

Phone

+92 333 4975431

Email

ifra.awan@rlmc.edu.pk

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Rashid Latif Medical College

Full name of responsible person

Dr. Ifra Zulqarnain Awan

Street address

35-km ferozepur road Lahore

City

Lahore

Postal code

54600

Phone

+92 333 4975431

Email

ifra.awan@rlmc.edu.pk

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Rashid Latif Medical College

Proportion provided by this source

100

Public or private sector

Private

Domestic or foreign origin

Domestic

Category of foreign source of funding

Sponsor: country of origin

Country of origin

PK

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Rashid Latif Medical College

Full name of responsible person

Rouman Naseer

Position

Physiotherapist

Latest degree

Bachelor

Other areas of specialty/work

Physiotherapy

Street address

Rashid Latif Medical College 35-km Ferozpur Road

Lahore

City

Lahore

Province

Punjab

Postal code

54600

Phone

+92 333 4975431

Fax

Email

ifra.awan@rlmc.edu.pk

Person responsible for scientific inquiries

Contact

Name of organization / entity

Rashid Latif Medical College

Full name of responsible person

Dr. Ifra Zulqarnain Awan

Position

Lecturer/Physiotherapist

Latest degree

Master

Other areas of specialty/work

Physiotherapy

Street address

Rashid Latif Medical College 35-km Ferozpur Road
Lahore

City

Lahore

Province

Punjab

Postal code

54600

Phone

+92 333 4975431

Fax

Email

ifra.awan@rlmc.edu.pk

Person responsible for updating data

Contact

Name of organization / entity

Rashid Latif Medical College

Full name of responsible person

Dr. Ifra Zulqarnain Awan

Position

Lecturer/Physiotherapist

Latest degree

Master

Other areas of specialty/work

Physiotherapy

Street address

Rashid Latif Medical College 35-km Ferozpur Road
Lahore

City

Lahore

Province

Punjab

Postal code

54600

Phone

+92 333 4975431

Fax

Email

ifra.awan@rlmc.edu.pk

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

Not applicable

Analytic Code

Not applicable

Data Dictionary

Not applicable