

Clinical Trial Protocol

Iranian Registry of Clinical Trials

09 Jun 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

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Rashid Latif Medical College

Full name of responsible person

Dr. Ifra Zulqarnain Awan

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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

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

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Person responsible for scientific inquiries

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Position

Lecturer/Physiotherapist

Latest degree

Master

Other areas of specialty/work

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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

Not applicable

Analytic Code

Not applicable

Data Dictionary

Not applicable