Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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 orthopeadic Limitation of rotation and side flexion of neck
Exclusion criteria:
History of neck surgery stenosis Scoliosis Nerve involvement Neck pain radiationg 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 sternocliedomastiod 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 sternocliedomastiod 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

City
Lahore

Postal code
53720

Phone
+92 42 35753538

Email
aroosaiqbal450@gmail.com

2

Recruitment center

Name of recruitment center
Zahida welfare hospital

Full name of responsible person
Aroosa Iqbal

Street address
H no 12 St no 1 Sami Town Lhr

City
Lahore

Postal code
53720

Phone
+92 42 36823416

Email
aroosaiqbal450@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
self

Full name of responsible person
Aroosa Iqbal

Street address
h no 12 st no 1 sami town lhr

City
Lahore

Postal code
53720

Phone
+92 42 35753538

Email
aroosaiqbal450@gmail.com

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

Street address
H no 12 St no 1 sami town lhr

City
lahore

Province
punjab

Postal code
53720

Phone
+92 42 35753538

Email
aroosaiqbal450@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity
Riphah International University,Lahore, Pakistan

Full name of responsible person
Aroosa Iqbal

Position

Student

Latest degree

Bachelor

Other areas of specialty/work

Physiotherapy

Street address

House no 12 street 1 Sami town Lahore, Pakistan

City

Lahore

Province

Punjab

Postal code

53720

Phone

+92 42 35753538

Fax

Email

aroosaiqbal450@gmail.com

Person responsible for updating data

Contact

Name of organization / entity

Riphah International University,Lahore, Pakistan

Full name of responsible person

Aroosa Iqbal

Position

Student

Latest degree

Bachelor

Other areas of specialty/work

Physiotherapy

Street address

House no 12 street 1 Sami town Lahore, Pakistan

City

Lahore

Province

Punjab

Postal code

53720

Phone

+92 42 35753538

Fax

Email

aroosaiqbal450@gmail.com

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