

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

Effect of Neuromuscular Reeducation on Myofascial Trigger Point in Cervical Pain patients

Protocol summary

Study aim

To evaluate the effect of Neuromuscular Reeducation technique along with sustain ischemic compression on upper trapezius myofascial trigger points regarding pain, muscle length.

Design

Two arm parallel group randomised trial with blinded postoperative care and outcome assessment

Settings and conduct

Data was collected from physiotherapy OPD of Railway Rehabilitation center, Railway General Hospital Pakistan. Subject recruitment occurred between Feb 2017 to July 2017 (6 Months) 49 patients having trigger point in upper trapezius muscle were included in the study and placed into 2 groups (24 in control group "A", 25 in experimental group "B") Non-probability convenient sampling technique was used to collect sample. Patients were randomly assigned using toss coin method.

Participants/Inclusion and exclusion criteria

INCLUSION CRITERIA :

- Age 18-55 years, both genders,
- Pain more than 5 on NPRS
- Reduced cervical lateral flexion to the opposite side and Painful upper trapezius trigger point
- Hypersensitive taut band in Upper fiber of trapezius
- Jump sign identification through patient vocalization or withdrawal symptom

EXCLUSION CRITERIA:

- Recent traumatic history of cervical spine or shoulder region
- Diagnosed Fibromyalgia syndrome
- Whiplash injury
- Malignancy
- Skin infections or open wound in the site of upper trapezius

Intervention groups

1. Moist HOT PACK: (5-8mins) at the start of treatment

2. Ultrasound: Frequency: 1- 3 MHz, Intensity: 1-1.4 W/cm², Time: 8-10 minutes, Mode 3. Ischemic compression: Appropriate amount of sustained pressures was applied for 90 sec and 3-5 times within one session.

4. NMR technique 3-5 times in each session.

5. Stretching & Home Plan: 3 sets of 10 repetition with 10 seconds hold (targeted muscles)

Main outcome variables

Outcomes were measured by ROM(Goniometer), NPRS scores at baseline and last treatment session

General information

Reason for update

Acronym

NMR

IRCT registration information

IRCT registration number: **IRCT20190924044861N1**

Registration date: **2019-09-27, 1398/07/05**

Registration timing: **retrospective**

Last update: **2019-09-27, 1398/07/05**

Update count: **0**

Registration date

2019-09-27, 1398/07/05

Registrant information

Name

KINZA ANWAR

Name of organization / entity

THE UNIVERSITY OF LAHORE, ISLAMABAD
CAMPUS, PAKISTAN

Country

Pakistan

Phone

+92 51 5537867

Email address

kinza.anwar29@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2017-01-05, 1395/10/16

Expected recruitment end date

2017-06-15, 1396/03/25

Actual recruitment start date

2017-02-07, 1395/11/19
Actual recruitment end date
 2017-07-20, 1396/04/29
Trial completion date
 2017-07-20, 1396/04/29

Scientific title
 Effect of Neuromuscular Reeducation on Myofascial Trigger Point in Cervical Pain patients

Public title
 Neuromuscular Reeducation on Myofascial Trigger Point

Purpose
 Health service research

Inclusion/Exclusion criteria
Inclusion criteria:
 Pain more than 5 on NPRS Reduced cervical lateral flexion to the opposite side and Painful upper trapezius trigger point Hypersensitive taut band in Upper fiber of trapezius Jump sign identification through patient vocalization or withdrawal symptom
Exclusion criteria:
 Recent traumatic history of cervical spine or shoulder region Diagnosed Fibromyalgia syndrome Whiplash injury Malignancy Skin infections or open wound in the site of upper trapezius

Age
 From **18 years** old to **55 years** old

Gender
 Both

Phase
 N/A

Groups that have been masked

- Participant
- Investigator

Sample size
 Target sample size: **70**
 Actual sample size reached: **49**

Randomization (investigator's opinion)
 Randomized

Randomization description
 The subjects were randomly divided into 2 groups (control group A and experimental group B) by coin toss method using convenient sampling technique and informed consent was taken from each patient participated in the study.Among them 25 patients were randomly allocated to each group.

Blinding (investigator's opinion)
 Double blinded

Blinding description
 In the present study both physical therapist and patients(participants) were blind.Patients were randomly allocated to both groups.

Placebo
 Not used

Assignment
 Other

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research Ethical Committee,Riphah College of Rehabilitation Sciences,Islamabad,Pakistan.

Street address

Riphah International University Islamabd City Campus
 7th Avenue, Sector G-7/4, Islamabad

City

ISLAMABAD

Postal code

47311

Approval date

2016-12-29, 1395/10/09

Ethics committee reference number

00177

Health conditions studied

1

Description of health condition studied

cervical pain due to myofascial trigger points(MTRPs)

ICD-10 code

M70.8

ICD-10 code description

Other soft tissue disorders related to use, overuse and pressure

Primary outcomes

1

Description

Goniometer for upper trapezius Range of motion(muscle length)

Timepoint

before intervention and after 2 weeks of intervention

Method of measurement

Goniometer for upper trapezius Range of motion(muscle length)placed goniometer in upper fibers of trapezius and ask to perform the movement, measure the ROM and then compare it with intact side.

Secondary outcomes

1

Description

Numeric Pain rating Scale(NPRS) for pain assessment scores

Timepoint

NPRS scores before treatment than after 2 weeks of treatment

Method of measurement

NPRS score beyond 5 were assessed before intervention and compare it after 2 weeks

Intervention groups

1

Description

Control group: Moist HOT PACK: (5-8mins) at the start of treatment 2. Ultrasound: Frequency: 1- 3 MHz, Intensity: 1- 1.4 W/cm², Time: 8-10 minutes, 3. Ischemic compression: Appropriate amount of sustained pressures was applied for 90 sec and 3-5 times within one session. 4. Stretching & Home Plan : 3 sets of 10 repetition with 10 seconds hold

Category

Treatment - Other

2

Description

Intervention group: 1. Moist HOT PACK: (5-8mins) at the start of treatment 2. Ultrasound: Frequency: 1- 3 MHz, Intensity: 1-1.4 W/cm², Time: 8-10 minutes, 3. Ischemic compression: Appropriate amount of sustained pressures was applied for 90 sec and 3-5 times within one session. 4. NMR technique 3-5 times in each session. 5. Stretching & Home Plan: 3 sets of 10 repetition with 10 seconds hold (targeted muscles)

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Railway Rehabilitation center, Pakistan Railway Hospital, Westridge, Rawalpindi, Pakistan

Full name of responsible person

Dr Abdul Ghafoor Sajjad

Street address

Railway Carriage Factory Rd, Railway Scheme 7, Rawalpindi, Punjab

City

Rawalpindi

Postal code

46060

Phone

+92 51 5481826

Email

ghafoor.sajjad@riphah.edu.pk

Web page address

<https://www.iimctprh.com/rehabilitation-center/>

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

RIPHAH COLLEGE OF REHABILITATION

SCIENCES, ISLAMABAD, PAKISTAN

Full name of responsible person

Abdul Ghafoor Sajjad

Street address

Riphah International University Islamabad City Campus
7th Avenue, Sector G-7/4, Islamabad

City

ISLAMABAD

Postal code

04406

Phone

+92 51 2891835

Email

ghafoor.sajjad@riphah.edu.pk

Web page address

<https://www.riphah.edu.pk/faculty/ict-rehabilitation-sciences/contact>

Grant name

Academic

Grant code / Reference number

0

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

Yes

Title of funding source

RIPHAH COLLEGE OF REHABILITATION
SCIENCES, ISLAMABAD, PAKISTAN

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

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

The University of Lahore, Islamabad Campus, Pakistan

Full name of responsible person

Kinza Anwar

Position

Lecturer

Latest degree

Master

Other areas of specialty/work

Physiotherapy

Street address

6.7 KM Japan Road, Sihala Zone V, Islamabad,
Pakistan

City

Rawalpindi

Province

Punjab

Postal code

44000

Phone
+92 51 5537867
Email
kinza.anwar29@gmail.com
Web page address
<https://isb.uol.edu.pk/>

Person responsible for scientific inquiries

Contact

Name of organization / entity
The University of Lahore, Islamabad Campus, Pakistan
Full name of responsible person
Kinza Anwar
Position
Lecturer
Latest degree
Master
Other areas of specialty/work
Physiotherapy
Street address
University Of Lahore Islamabad Campus - 6.7 Km
Japan Road, Sihala Zone V,, Islamabad, Pakistan
City
Rawalpindi
Province
Punjab
Postal code
44000
Phone
+92 51 5537867
Fax
Email
kinza.anwar29@gmail.com
Web page address
https://isb.uol.edu.pk

Person responsible for updating data

Contact

Name of organization / entity
The University of Lahore, Islamabad Campus, Pakistan
Full name of responsible person
Kinza Anwar
Position
Lecturer
Latest degree
Master
Other areas of specialty/work
Physiotherapy
Street address

University Of Lahore Islamabad Campus - 6.7 Km
Japan Road, Sihala Zone V,, Islamabad, Pakistan

City
Rawalpindi
Province
Punjab
Postal code
44000
Phone
+92 51 5537867
Fax
Email
kinza.anwar29@gmail.com
Web page address
https://isb.uol.edu.pk

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

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

Title and more details about the data/document

IPD collected for the primary outcome measure only

When the data will become available and for how long

starting 6 months after publication

To whom data/document is available

in academic institutions

Under which criteria data/document could be used

who want to compare/conduct research on
Neuromuscular Reeducation and myofascial trigger
points data will be provided.

From where data/document is obtainable

KINZA ANWAR LECTURER AT UNIVERSITY OF
LAHORE, ISLAMABAD CAMPUS, PAKISTAN
kinza.anwar29@gmail.com +923239735427

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

through email

Comments