

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jul 2026

The Effects of Neuromobilization in Patients With Shoulder Impingement Syndrome on Pain, Strength, Range of Motion and Functional disability Score.

Protocol summary

Study aim

As neuromobilization was remained neglected in past therefore I decided to add neuromobilization for Shoulder impingement syndrome. The need is not only for investigation about this type of intervention but also recruiting appropriate sample size and age category for valid results.

Design

Randomized controlled trial

Settings and conduct

Social Security Hospital Gujranwala, Punjab, Pakistan.
IRB Approved

Participants/Inclusion and exclusion criteria

80 participants inclusion criteria 1)Positive Impingement Sign 2)Age Between 20-50 years 3)Patient with Positive Special Tests (Neers Test, Hawkins Kennedy Test, Empty Can Test) exclusion criteria Patients with co-morbidity such as Cervical Radiculopathy, Acromioclavicular Joint Pathology and Shoulder Dislocation/ Subluxation/ Fracture. Patients with history of Cervical, Shoulder of Upper Back Surgery

Intervention groups

Range of Motion Exercises, Stretching, Joint and tissue mobilization, Neural Mobilization Techniques, Motor Control Training, Strength Training. Shortwave diathermy/ Hot Pack, TENS, Ultrasound

Main outcome variables

Range of Motion Pain Intensity

General information

Reason for update

Acronym

NONE

IRCT registration information

IRCT registration number: **IRCT20190121042445N1**
Registration date: **2019-02-19, 1397/11/30**

Registration timing: **prospective**

Last update: **2019-05-18, 1398/02/28**

Update count: **1**

Registration date

2019-02-19, 1397/11/30

Registrant information

Name

Muhammad Akhtar

Name of organization / entity

University of Lahore, Lahore, Pakistan

Country

Pakistan

Phone

+92 55 3732032

Email address

a.hunjra@gmail.com

Recruitment status

Not yet recruiting

Funding source

Expected recruitment start date

2637-11-06, 2016/08/15

Expected recruitment end date

2639-06-21, 2018/03/31

Actual recruitment start date

2637-11-06, 2016/08/15

Actual recruitment end date

2639-06-21, 2018/03/31

Trial completion date

2639-06-21, 2018/03/31

Scientific title

The Effects of Neuromobilization in Patients With Shoulder Impingement Syndrome on Pain, Strength, Range of Motion and Functional disability Score.

Public title

The Effects of Neuromobilization in Patients With Shoulder Impingement Syndrome on Pain, Strength, Range of Motion and Functional disability Score

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Positive Impingement Sign Age Between 20-50 years
Patient with Positive Special Tests (Neers Test, Hawkins Kennedy Test, Empty Can Test)

Exclusion criteria:

Patients with co-morbidity such as Cervical Radiculopathy, Acromioclavicular Joint Pathology and Shoulder Dislocation/ Subluxation/ Fracture. Patients with history of Cervical, Shoulder or Upper Back Surgery

Age

From **20 years** old to **50 years** old

Gender

Both

Phase

4

Groups that have been masked

- Investigator

Sample size

Target sample size: **80**

Actual sample size reached: **90**

Randomization (investigator's opinion)

Randomized

Randomization description

Single blind randomized clinical trial. The sequence of assignment was determined using a computer generated random sequence table before the study. Individual, sequentially numbered index cards with the random assignment were prepared. The index cards were folded and placed in sealed, opaque envelopes. After the baseline examination, participants were randomly assigned to receive routine physiotherapy or routine physiotherapy plus neuromobilization.

Blinding (investigator's opinion)

Single blinded

Blinding description

A single blind randomized clinical trial in which the investigator assessing the outcomes doesn't know the identity of intervention.

Placebo

Not used

Assignment

Parallel

Other design features

80 patients

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Institutional Review Board, University of Lahore

Street address

Raiwind road

City

Lahore

Postal code

53720

Approval date

2637-10-24, 2016/08/02

Ethics committee reference number

IRB-238-II

Health conditions studied

1

Description of health condition studied

patients suffering from shoulder impingement syndrome lead impairment of daily activities and reduction in work capacity. Most of patients have painful symptoms at night and during abduction which may affect the sleep and daily activities. Forty percent of the populations possibly suffer from shoulder pain at some point of their life time.

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Pain Intensity

Timepoint

before intervention, 5th week and 11th week after intervention

Method of measurement

Pain by Visual Analogue Scale

2

Description

Range of motion

Timepoint

Before intervention, on 5th week and on 11th week

Method of measurement

Measured by Goniometry

Secondary outcomes

1

Description

Shoulder Strength

Timepoint

Before intervention, on 5th week and on 11th week

Method of measurement

Strength by Hand held dynamometer

2

Description

Functional disability score

Timepoint

Before intervention, on 5th week and on 11th week

Method of measurement

UCLA Score

Intervention groups

1

Description

Intervention group: Neuromobilization was applied using Butler's recommendations. Procedure; Initially, the patient performed neural sliders and gradually progressed to neural tensioners. Neural sliders consisted of cervical lateral flexion movement, toward the involved side, simultaneously with elbow flexion and extension movements. While moving the head in to cervical lateral flexion the elbow was extended. When the elbow began to flex, the cervical spine was returned to neutral. Neural tensioners are the opposite of neural sliders. Neural tensioners are not a stretch and are performed to create tension in the nerve. The tension position is not held for a length of time, but is released by extending the elbow and returning the cervical spine to neutral once the patient had pushed slightly past the point of initially experiencing pain or discomfort. Neuromobilization technique was performed for 5 sec with 10 repetitions.

Category

Treatment - Other

2

Description

Control group: The routine physiotherapy includes pulsed Short wave diathermy, ultrasonic treatment, TENS and shoulder strengthening exercises for rotator cuff muscles and stretching exercises to regain flexibility. Joint and tissue mobilization, motor Control Training, strengthening and stretching exercises were performed for 5 sec with 10 repetitions.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Social Security Hospital

Full name of responsible person

Dr Waqar Zafar Bajwa

Street address

Model Town

City

Gujranwala

Postal code

52250

Phone

+92 55 9200152

Email

a.hunjra@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Social Security Hospital

Full name of responsible person

Muhammad Akhtar

Street address

Model Town

City

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Postal code

52250

Phone

+92 55 9200125

Email

a.hunjra@gmail.com

Grant name

N/A

Grant code / Reference number

N/A

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

Yes

Title of funding source

Social Security Hospital

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

The University of Lahore

Full name of responsible person

Hossein Karimi

Position

Professor

Latest degree

Ph.D.

Other areas of specialty/work

Biomechanics

Street address

Defence road

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Person responsible for scientific inquiries

Contact

Name of organization / entity
PESSI
Full name of responsible person
Muhammad Akhtar
Position
Head Of Department
Latest degree
Master
Other areas of specialty/work
Physiotherapy
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Fax
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Web page address

Person responsible for updating data

Contact

Name of organization / entity
PESSI
Full name of responsible person
Muhammad Akhtar
Position
HOD
Latest degree
Master

Other areas of specialty/work
Physiotherapy
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a.hunjra@gmail.com

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

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

Not applicable

Data Dictionary

No - There is not a plan to make this available

Title and more details about the data/document

The Effects of Neuromobilization in Patients With
Shoulder Impingement Syndrome on Strength and Range
of Motion.

When the data will become available and for how long

data will be available when my Ph.D study completed

To whom data/document is available

For academic institutions only

Under which criteria data/document could be used

People who will request for data

From where data/document is obtainable

through email address

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

my email address

Comments

N/A