Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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

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+92 55 3732032

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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 of 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 neurombilization.

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
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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
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Person responsible for scientific inquiries

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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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Gujranwala
Province
Punjab
Postal code
52250
Phone
N/A
Fax
Email
a.hunjra@gmail.com
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
Street address
Model Town
City
Gujranwala
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Punjab
Postal code
52250
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N/A
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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