Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effectiveness of Upper Thoracic Sustained Stretch Mobilization and Posterior Shoulder Strech Glide for Subacromial Impingement Syndrome

Protocol summary

Study aim

The aim of this study was to evaluate the comparative effectiveness of upper thoracic sustained stretch mobilization and posterior shoulder stretch glide for management of SIS symptoms severity such as shoulder pain, disability, range of motion and thoracic kyphosis angle.

Design

A double blinded randomized clinical trial

Settings and conduct

a study conducted at; Bakhtawar Amin Trust and Hospital Multan Faiz hospital Multan Outcome assesor and data analyzer will be unaware of intervention recieved by particular subject/ group

Participants/Inclusion and exclusion criteria

Inclusion criteria: (1) Potentially willing patients diagnosed with subacromial impingement syndrome (SIS) (2) Both male and female, of age 25-45 years (3) Patients with thoracic kyphosis >40o (4) At least three positive physical tests from followings Neer impingement test, Hawkins kneddy test, Drop arm test, relocation test and apprehension test will be included. (5) Patients often had painful arc between 70° and 120° pain on forced movement above the head. Exclusion criteria: Patients with following conditions will be excluded (1) History of rotator cuff tear, shoulder and cervicothoracic surgery. (2) Patients of scapulothoracic dysfunction, sensory/ motor deficit and adhesive capsulitis. (3) Osteoporosis, fracture and dislocation.(4) Presence of thoracic scoliosis on Adam’s forward bend test.

Intervention groups

Group A- Upper thoracic (T1-T4) centrally posterio-anterior sustained stretch mobilization Group B- Postrior shoulder sustained stretch glide

Main outcome variables

shoulder pain, physical disability, range of motion and thoracic kyphosis angle are outcome measures.

General information

Reason for update

Acronym

UTSSM

IRCT registration information

IRCT registration number: **IRCT20220712055441N1**
Registration date: **2022-07-15, 1401/04/24**
Registration timing: **retrospective**

Last update: **2022-07-15, 1401/04/24**
Update count: **0**

Registration date

2022-07-15, 1401/04/24

Registrant information

Name

Shahid Ishaq

Name of organization / entity

Muhammad Institute of Medical and Allied Sciences, Multan

Country

Pakistan

Phone

+92 305 2032722

Email address

shahidishaq@mimas.edu.pk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-01-08, 1400/10/18

Expected recruitment end date

2022-01-28, 1400/11/08

Actual recruitment start date

2022-01-16, 1400/10/26

Actual recruitment end date

2022-02-05, 1400/11/16

Trial completion date

2022-08-06, 1401/05/15

Scientific title
Effectiveness of Upper Thoracic Sustained Stretch Mobilization and Posterior Shoulder Strech Glide for Subacromial Impingement Syndrome

Public title
Upper Thoracic and Postrior Shoulder sustained Stretch Glide

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Both male and female, of age 25-45 years Patients with thoracic kyphosis >40o Patients with at least three positive physical tests from followings Neer impingement test, Hawkins kneddy test, Drop arm test, relocation test and apprehension test will be included. Patients often have painful arc between 70° and 120° pain on forced movement above the head

Exclusion criteria:
History of rotator cuff tear, shoulder and cervicothoracic surgery Patients of scapulothoracic dysfunction, sensory/ motor deficit and adhesive capsulitis Osteoporosis Surgery Fractures Dislocations Presence of thoracic scoliosis on Adam’s forward bend test

Age
From **25 years** old to **45 years** old

Gender
Both

Phase
2-3

Groups that have been masked

- Outcome assessor
- Data analyser

Sample size
Target sample size: **46**
More than 1 sample in each individual
Number of samples in each individual: **23**
Twenty Three patients per group
Actual sample size reached: **40**
More than 1 sample in each individual
Actual sample size in each individual: **20**
Twenty patients per group

Randomization (investigator's opinion)
Randomized

Randomization description
The patietns diagnosed with subacromial impingement syndrome (SIS) (n=46)referred by orthopedic surgeon will be secrened for eligibility. The patients (n=40) meet the eligibility criteria will be randomly allocated in two equal groups (n=20) in each group through online computer generated random number table. Every participant will be assigned a random number after writtten informed consent.

Blinding (investigator's opinion)
Double blinded

Blinding description
In this double-blinded study, outcomes will be measured at baseline and after completing 4 weeks successful followup by senior physical therapist with out knowing treatment regimn given to that particular patient. Data will be analyzed by statistician without knowing the intervention given to any particular group.

Placebo
Not used

Assignment
Parallel

Other design features
thoracic kyphosis will be measured by using an inclinometer shoulder ROM will be measured by a universal goniometer, pain intensity will be measure by NPRS, shoulder disability will be measured by shoulder pain and disability index

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Research ethics committee of Muhmmad Intitute of Medical and Allied Sciences

Street address
HBL street Near Sabza Zar Metro Station, Bosan Road Multan

City
Multan

Postal code
60700

Approval date
2021-12-18, 1400/09/27

Ethics committee reference number
MIMAS/75/IBR/Shahid

Health conditions studied

1

Description of health condition studied
subacromial impingement syndrome

ICD-10 code
M75.4

ICD-10 code description
Impingement syndrome of shoulder

Primary outcomes

1

Description
Shouder Physical Disability

Timepoint
Evaluated before and after treatment

Method of measurement
Shoulder pain and disability index (SPADI)

2

Description
Shoulder pain intensity,
Timepoint
evaluated before and after treatment
Method of measurement
Numeric pain rating scale (NPRS),

3

Description
shoulder range of motion
Timepoint
evaluated before and after treatment
Method of measurement
Universal goniometer

Secondary outcomes

1

Description
Thoracic Kyphosis Angle
Timepoint
evaluated before and after treatment protocol
Method of measurement
sagittal plane radiograph in weight bearing position and arm folded 45o

Intervention groups

1

Description
Group A will recieve upper thoracic (T1-T4) centrally postrio-anterior sustained stretch mobilization. The patient was in prone and a small pillow was placed under the chest. Therapist applied central posterior-anterior (CPA) mobilization force with straight arm by using body as mobilizing force. The mobilization was given beyond transition zone for grade 3 stretching of joint capsule and soft tissue. Each stretch was sustained for 30-40 second and repeated in cyclic manner for 3 time per session. This mobilization treatment was applied parallel to routine physical therapy. All patients will be treated paralelly 3 time a week for 4 weeks.
Category
Treatment - Other

2

Description
Group B will posterior shoulder sustained stretch glide. The patient will be in supine laying near the edge of treatment table. The therapist will distract the joint in open pack position and apply grade 3 stretch glide to posterior shoulder capsule. Each stretch will be sustained for 30-40 second. The treatment will be cyclically repeated for 3 time per session. All patients will be treated paralelly 3 time a week for 4 weeks.
Category
Treatment - Other

Recruitment centers

1

Recruitment center
Name of recruitment center
department of physical therapy of Bakhtawar trust and teaching hospital
Full name of responsible person
Shahid Ishaq
Street address
Mattital Road, Northern Bypass, Multan,
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Muhammad Institute of Medical and Allied Sciences, Multan
Full name of responsible person
Shahid Ishaq
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HBL. Street, Near Sabzazar Metro Station, Bosan Road, Multan
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Email
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Web page address
http://mimas.edu.pk/
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
No
Title of funding source
nill
Proportion provided by this source
10
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
Muhammad Institute of Medical and Allied Science
Full name of responsible person
Shahid Ishaq
Position
Senior Lecturer
Latest degree
Master
Other areas of specialty/work
Physiotherapy
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Person responsible for updating data

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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
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
Yes - There is a plan to make this available
Title and more details about the data/document
Title: Effectiveness of Upper thoracic sustained stretch mobilization and Posterior shoulder stretch glide for Subacromial Impingement Syndrome Purpose: to evaluate the comparative effectiveness of upper thoracic sustained stretch mobilization and posterior shoulder stretch glide for management of SIS symptoms severity such as shoulder pain, disability, range of motion and thoracic kyphosis angle.
When the data will become available and for how long
this is expected that this study or data will be available at the end of the year. no exact date can be expected
To whom data/document is available
Shahid Ishaq
Under which criteria data/document could be used
For research purposes

From where data/document is obtainable

https://www.researchgate.net/
https://scholar.google.com/

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

open access

Comments

This randomized clinical trial will explore the new dimentions of SIS treatment.