

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effects of powerball in addition to routine physical therapy on pain, range of motion and functional disability in scapular dyskinesis

Protocol summary

Study aim

To compare the effects of Powerball in addition to routine physical therapy on pain, range of motion and functional disability in patients with scapular dyskinesis

Design

Randomized Controlled Trial; single-blinded; on 44 samples; parallel groups; randomized by computer-generated method and further concealed envelope method used for allocation in the group. In the envelope, 1 will be code for the control group and 2 will be code for the experimental group.

Settings and conduct

The study will be conducted at the Physiotherapy department THQ Khushab. The study will be single-blinded. The assessor will unaware of the treatment given to either group.

Participants/Inclusion and exclusion criteria

Inclusion Criteria: Age of 25- 50 years. Both gender Pre-Diagnosed cases of scapular dyskinesis A score of greater than or equal to 4/10 on Numeric Rating Pain Scale (NRPS) All types of scapular dyskinesis Exclusion Criteria: Previous cervical spine or shoulder surgery Presence of a severe systemic disease (as Systemic lupus erythematosus, Sickle cell disease) Participation in an exercise program for the scapular or shoulder muscles in the 6 months preceding the study Severe osteoporosis Whiplash injury/fracture

Intervention groups

Group B: (Experimental Group) Group B will receive Powerball intervention along with same conventional physical therapy as given in group A. 3 sessions will be given on alternate days each week, for next 4 weeks. 5-10 minutes Powerball intervention will be given in each session. The overall treatment session for this group lasts for 35-40 minutes.

Main outcome variables

pain, range of motion and functional disability

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210321050752N3**

Registration date: **2023-03-08, 1401/12/17**

Registration timing: **registered_while_recruiting**

Last update: **2023-03-08, 1401/12/17**

Update count: **0**

Registration date

2023-03-08, 1401/12/17

Registrant information

Name

Muhammad Waqas

Name of organization / entity

The University of Lahore

Country

Pakistan

Phone

+92 42 36532841

Email address

drwaqasfayyaz@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-12-07, 1401/09/16

Expected recruitment end date

2023-05-07, 1402/02/17

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of powerball in addition to routine physical therapy on pain, range of motion and functional disability in scapular dyskinesia

Public title

Effects of powerball on pain, range of motion and functional disability in scapular dyskinesia

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Age of 25- 50 years Both gender Pre-Diagnosed cases of scapular dyskinesia A score of greater than or equal to 4/10 on Numeric Rating Pain Scale (NRPS) All types of scapular dyskinesia

Exclusion criteria:

Previous cervical spine or shoulder surgery Presence of a severe systemic disease (as Systemic lupus erythematosus, Sickle cell disease) Participation in an exercise program for the scapular or shoulder muscles in the 6 months preceding the study Severe osteoporosis Whiplash injury/fracture

Age

From **25 years** old to **50 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **44**

Randomization (investigator's opinion)

Randomized

Randomization description

Patients were randomized by using the computer-generated method and further concealed envelope method is used for allocation in the group. In the envelope, 1 will be code for the control group and 2 will be code for the experimental group.

Blinding (investigator's opinion)

Single blinded

Blinding description

Assessor will only assess the patient at baseline and after follow-up for treatment outcomes. Assessor safe the data for follow-up and will not share it with any therapist or patient. At any stage, the assessor is unaware of the treatment and control group. The study was single-blinded. The assessor was unaware of the treatment given to either groups 1 or 2.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

The rules and regulations set by the ethical committee of The University of Lahore will be followed.

Street address

RAIWIND ROAD CAMPUS: 1-Km, Raiwind Road, Near Thokar Niaz Big, Lahore

City

Lahore

Postal code

5400

Approval date

2022-12-07, 1401/09/16

Ethics committee reference number

REC.UOL.269.12.2022

Health conditions studied

1

Description of health condition studied

Muscular dystrophy

ICD-10 code

G71.0

ICD-10 code description

Muscular dystrophy

Primary outcomes

1

Description

Pain

Timepoint

Data will be collected at base line, at 2nd week and at 4th week after intervention

Method of measurement

Numeric pain rating scale to measure pain

2

Description

Functional Disability

Timepoint

Data will be collected at base line, at 2nd week and at 4th week after intervention

Method of measurement

The Shoulder Pain and Disability Index (SPADI)

3

Description

Scapular Range of Motion

Timepoint

Data will be collected at base line, at 2nd week and at 4th week after intervention

Method of measurement

To measure linear distance of scapula, tape is used to measure accurate up to 0.1 cm.

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Group B: (Experimental Group)Group B will receive Powerball intervention along with same conventional physical therapy as given in group A. 3 sessions will be given on alternate days each week, for next 4 weeks.5-10 minutes Powerball intervention will be given in each session. The overall treatment session for this group lasts for 35-40 minutes.

Category

Rehabilitation

2

Description

Control group: Group A: (Control Group)Group A will receive conventional physical therapy (stretching exercises, mobility and strengthening exercise). Hot pack and Therapeutic ultrasound will be given for 8-10 minutes each in every session. This will be given up to three sessions per week on alternate days.Each session will last for 30 minutes.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

THQ Hospital khushab

Full name of responsible person

Shahid Iqbal

Street address

THQ khushab, kushab sakesar road kushab (punjab)

City

Sargodha

Postal code

40600

Phone

+92 302 6039958

Email

shahidiqbalsa8@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Self Supported

Full name of responsible person

Kashaf Faraz

Street address

Rajab house jail road shahpur sadar

City

Sargodha

Postal code

40600

Phone

+92 304 6541357

Email

kashaffraz@gmail.com

Grant name

Grant code / Reference number

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

No

Title of funding source

Self Supported

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

Muhammad Waqas

Position

Lecturer

Latest degree

Master

Other areas of specialty/work

Physiotherapy

Street address

St# 76, H#09 Muhala Sirajpura Darogawala Shalamar
Town Lahore

City

Lahore

Province

Punjab

Postal code

54840

Phone

+92 323 5043603

Email

drwaqasfayyaz@gmail.com

Web page address

<https://faculty.uol.edu.pk/Faculty/11621/Muhammad%20Waqas>

Person responsible for scientific inquiries

Contact

Name of organization / entity

The University of Lahore

Full name of responsible person

Muhammad Waqas

Position

Lecturer

Latest degree

Master

Other areas of specialty/work

Neurological Physical Therapy

Street address

St# 76, H#09 Muhala Sirajpura Darogawala Shalamar

Town Lahore

City

Lahore

Province

Punjab

Postal code

54840

Phone

+92 323 5043603

Email

drwaqasfayyaz@gmail.com

Web page address

<https://faculty.uol.edu.pk/Faculty/11621/Muhammad%20Waqas>

Person responsible for updating data

Contact

Name of organization / entity

The University of Lahore

Full name of responsible person

Muhammad Waqas

Position

Lecturer

Latest degree

Master

Other areas of specialty/work

Physiotherapy

Street address

St# 76, H#09 Muhala Sirajpura Darogawala Shalamar

Town Lahore

City

Lahore

Province

Punjab

Postal code

54840

Phone

+92 323 5043603

Email

drwaqasfayyaz@gmail.com

Web page address

<https://faculty.uol.edu.pk/Faculty/11621/Muhammad%20Waqas>

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

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

Title and more details about the data/document

Numeric pain rating scale will be used for the assessment of pain. Functional disability related data.

When the data will become available and for how long

6 months after publication.

To whom data/document is available

academic and clinical research writers.

Under which criteria data/document could be used

Never without permission.

From where data/document is obtainable

From Muhammad Waqas through mail id. drwaqasfayyaz@gmail.com or through a Researchgate account.

https://www.researchgate.net/profile/Muhammad-Waqas-26?ev=hdr_xprf

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

From Muhammad Waqas through mail id. drwaqasfayyaz@gmail.com or through a Researchgate account.

https://www.researchgate.net/profile/Muhammad-Waqas-26?ev=hdr_xprf

Comments