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 envelop 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 erythematous, 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 dyskinesis

Public title
Effects of powerball on pain, range of motion and functional disability in scapular dyskinesis

Purpose
Treatment

Inclusion/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 erythematous, Sicklecell disease) Participation in an exercise program for the scapular or shoulder muscles in the 6months 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 envelop method is used for allocation in the group. In the envelop, 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

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

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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

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Person responsible for updating data

Contact

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The University of Lahore

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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
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