

Clinical Trial Protocol

Iranian Registry of Clinical Trials

21 Jun 2026

The effect of 8-weeks scapular focused training on pain, proprioception, selected shoulder muscle electrical activity, scapular kinematic and upper extremity performance in male volleyball players with shoulder impingement syndrome

Protocol summary

Study aim

The effect of 8-weeks scapular focused training on pain, proprioception, selected shoulder muscle electrical activity, scapular kinematic and upper extremity performance in male volleyball players with shoulder impingement syndrome

Design

In this study, 30 male volleyball athletes with shoulder impingement syndrome were selected with the approval of their physician. Then, they were divided into two groups as simple and individual randomization.

Settings and conduct

This study are performing at the Sport Sciences of Urmia University for 8 weeks in two groups.

Participants/Inclusion and exclusion criteria

Male volleyball players of university. At least participate three times a week (each session for at least 1/5 hour) in volleyball training. Having general health. Having BMI between 19-25. The Empty can and Hawkins Kennedy tests be positive. Having shoulder impingement syndrome with the approval of specialist physician.

Intervention groups

The first intervention group received focused scapular training (training protocol) and the control group received their usual daily activities.

Main outcome variables

pain, proprioception, selected shoulder muscle electrical activity, scapular kinematic and upper extremity performance

General information

Reason for update

Acronym

SIS

IRCT registration information

IRCT registration number: **IRCT20190811044503N1**

Registration date: **2019-09-04, 1398/06/13**

Registration timing: **registered_while_recruiting**

Last update: **2019-09-04, 1398/06/13**

Update count: **0**

Registration date

2019-09-04, 1398/06/13

Registrant information

Name

Mir Hassan Mir Hassan Zadeh Kuhkamar

Name of organization / entity

Kharazmi University

Country

Iran (Islamic Republic of)

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seyedhassan@outlook.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-07-28, 1398/05/06

Expected recruitment end date

2019-10-07, 1398/07/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of 8-weeks scapular focused training on pain,

proprioception, selected shoulder muscle electrical activity, scapular kinematic and upper extremity performance in male volleyball players with shoulder impingement syndrome

Public title

Effect of scapular focused training in male volleyball players with shoulder impingement syndrome

Purpose

Supportive

Inclusion/Exclusion criteria**Inclusion criteria:**

Male volleyball players of university. At least participate three times a week (each session for at least 1/5 hour) in volleyball training. Having general health. Having BMI between 19-25. The Empty can and Hawkins Kennedy tests be positive. Having shoulder impingement syndrome with the approval of specialist physician.

Exclusion criteria:

Having any history of fracture and surgery on the shoulder joint. Not regular participation in training sessions for three times a week. musculoskeletal abnormalities (kyphosis upper than 45 degrees, forward head less than 50 °, scapular dysfunction, ...). Pain upper than 40 mm based on VAS questionnaire. History of dislocation, semi-dislocation, fracture and shoulder surgery.

Age

From **19 years** old to **27 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

This study is a restricted randomization. The method of implementing is classified randomization, which is used to balance the number of random samples assigned within groups. This method is used to ensure equilibrium in sample size between groups over time. After determination block size by the researcher, the number of groups must also be specified. Then the number of people with the special code put in the envelope. Envelopes will be merged together then one envelope put out then Envelopes will be re-merged. The first envelope put into Group 1, the second envelope put into Group 2 and up. For hiding random determination we use closed not clear envelopes with random sequence. After the random sequence based on the sample size, a number of packages are prepared and each random sequence created on the card is recorded and the cards are inserted into the letter envelopes respectively. For maintain a random sequence on the outer surface of the envelope, the numbering will be done in the same way and attached to the envelopes. At the time of registration of participants, one of the envelopes will be opened by the arrival of participants and groups of

participants will be announced.

Blinding (investigator's opinion)

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics committee of Shahid Beheshti University of Medical Sciences

Street address

Shahid Beheshti University, Shahid Shahriari Square, Daneshjou Boulevard, Shahid Chamran Highway, Tehran, Iran

City

Tehran

Province

Tehran

Postal code

1983969411

Approval date

2019-07-23, 1398/05/01

Ethics committee reference number

IR.SBU.REC.1398.001

Health conditions studied**1****Description of health condition studied**

Impingement syndrome of shoulder

ICD-10 code

M75.4

ICD-10 code description

Impingement syndrome of shoulder

Primary outcomes**1****Description**

pain

Timepoint

Before intervention and 8 weeks after intervention

Method of measurement

Visual Analogue Scale

2**Description**

Proprioception

Timepoint

Before intervention and 8 weeks after intervention

Method of measurement

Isokinetic machine

3

Description

muscles electrical activity

Timepoint

Before intervention and 8 weeks after intervention

Method of measurement

Electromyography machine

4

Description

Scapular Kinematic

Timepoint

Before intervention and 8 weeks after intervention

Method of measurement

Inclinometer

5

Description

Upper extremity function

Timepoint

Before intervention and 8 weeks after intervention

Method of measurement

Y Balance Test

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: The intervention group do the scapular focused training that included neuromuscular, stretching, and strengthening exercises for 8 sessions, 3 sessions per week, 60 minutes per session (10 min warm-up, 45 min exercises, 5 min cool down)

Category

Rehabilitation

2

Description

Control group: They perform their daily activities

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Faculty of Sport Sciences of Urmia University

Full name of responsible person

Mir Hassan Mir Hassan Zadeh Kuhkamar

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11 km of Sero Road, Urmia University, Faculty of Sport Sciences

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Kharazmi University of Tehran

Full name of responsible person

Maliheh Hadad Nezhad

Street address

No.43. South Mofatteh Ave., Tehran, Iran

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۱۴۹۱۱-۱۵۷۱۹

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Kharazmi University of Tehran

Proportion provided by this source

30

Public or private sector

Public

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

Kharazmi University

Full name of responsible person

Mir Hassan Mir Hassan Zadeh Kuhkamar

Position

Student of sport injuries prevention and corrective exercises

Latest degree

Bachelor

Other areas of specialty/work

Sport Medicine

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be 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

Not applicable

Analytic Code

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

All information is shareable with the permission of the supervisor after non-identifying information.

When the data will become available and for how long

Accessing 6 months after publishing results in articles and obtaining permission from the relevant university.

To whom data/document is available

No limitation.

Under which criteria data/document could be used

There is limitation just in personal information

From where data/document is obtainable

Call Mr. Mir Hassan Zadeh.

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

Contact Mir Hassan Mir Hassan Zadeh and coordination with the Department of Sports sciences of Kharazmi University of Tehran.

Comments