Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 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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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
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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