Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effect of Selected Exercises on strength, Glenohumeral Rotation range of Motion and Scapular Position in female volleyball Players with Scapular Dyskinesis

Protocol summary

Study aim
Appropriate training protocol to correct scapular movement disorder and prevent shoulder injuries in volleyball players

Design
This study is a clinical trial with a control group, with parallel groups, one-way blind, randomized on 48 players with scapular movement disorder. Excel random function was used for randomization.

Settings and conduct
. Anthropometric variables, range of motion of internal and external rotation of the shoulder, and strength of internal and external rotational muscles of the shoulder will be evaluated. Then, the subjects will be divided into two groups of training and control. Based on the studies, the training group will participate in selected exercises for eight weeks for three sessions per week, and after completing the training period, they will re-evaluate the studied variables. Took. The evaluator is not aware of the classification of individuals.

Participants/Inclusion and exclusion criteria
Inclusion criteria : female gender, having at least three years of experience in regular volleyball and having a scapular movement disorder. Exclusion conditions: Pain in the shoulder girdle and neck in any of the normal and training conditions, history of fracture or dislocation in any of the bones of the shoulder girdle, complete rupture of the shoulder girdle muscles

Intervention groups
The training protocol consists of three stages, the first part focusing on shoulder control and increasing range of motion, the second phase on increasing scapular muscle strength and sensory-motor exercises, and the third phase on advanced sensorimotor exercises. All exercises are done in three sets with 15 repetitions. The rest between each set is gradually reduced until the end of the period. The control group has their own daily exercise program.

Main outcome variables
Strength of internal rotator cuff muscles, range of motion of internal shoulder rotators, scapular position

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20170114031921N3**
Registration date: **2022-07-10, 1401/04/19**
Registration timing: **registered_while_recruiting**

Last update: **2022-07-10, 1401/04/19**
Update count: **0**

Registration date
2022-07-10, 1401/04/19

Registrant information

Name
homa naderifar

Name of organization / entity
Tehran

Country
Iran (Islamic Republic of)

Phone
+98 21 5541 6134

Email address
homa.naderifar@ut.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2022-06-27, 1401/04/06

Expected recruitment end date
2022-12-27, 1401/10/06

Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Effect of Selected Exercises on strength, Glenohumeral Rotation range of Motion and Scapular Position in female volleyball Players with Scapular Dyskinesis

Public title
Effect of Exercises on strength, Glenohumeral Rotation range of Motion and Scapular Position in female volleyball Players with Scapular Dyskinesis
Purpose
Supportive
Inclusion/Exclusion criteria
Inclusion criteria:
Players with scapular dysfunction
Exclusion criteria:
Age
No age limit
Gender
Female

Phase
N/A
Groups that have been masked

- Outcome assessor
- Data analyser

Sample size
Target sample size: **48**
Randomization (investigator's opinion)
Randomized
Randomization description
Block randomization is usually used to balance the number of samples assigned to each of the intervention and comparison groups. This feature makes the number of samples assigned to each of the study groups equal in cases where intermediate analyzes are needed during the sampling process. In this randomization, the method of equal blocks (10 blocks of 4) is used, which in each block, half of the intervention and half of the people are considered as a comparison. And we assigned it to different groups. How and tool to generate random block sequences using the site https://www.sealedenvelope.com/simple-randomiser/v1/lists done .
Blinding (investigator's opinion)
Single blinded
Blinding description
Coding by one of the project collaborators It takes place and the evaluators are blind.
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Hamadan University of Medical Sciences
Street address
Hamedan, Research Square, Shahid Fahmideh St., Headquarters of the University of Medical Sciences
City
Hamadan
Province
Hamadan
Postal code
6517838678
Approval date
2022-06-11, 1401/03/21
Ethics committee reference number
IR.UMSHA.REC.1401.244

Health conditions studied

1

Description of health condition studied
Scapular movement disorder
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Range of motion of shoulder rotation
Timepoint
The beginning of the study (before the intervention) and the day after the end of the training program
Method of measurement
360 goniometer

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: The training group participates in selected exercises for three sessions a week for eight weeks. The training protocol consists of three phases, the first phase focusing on controlling the shoulder and increasing the range of motion, the second phase on increasing the strength of the scapular muscles and

sensory-motor exercises. And the third phase is advanced sensory-motor exercises. All exercises are performed in three sets with 15 repetitions.

Category

Rehabilitation

2

Description

Control group: Have your own daily exercise routine

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Shahin Sports Club

Full name of responsible person

Homa Naderifar

Street address

Building No. 4, Shariati Crossroad., Hamadan, Iran.

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6517838678

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Hamedan University of Medical Sciences

Full name of responsible person

Reza Shokohi

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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

Hamedan University of Medical Sciences

Proportion provided by this source

100

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

Hamedan University of Medical Sciences

Full name of responsible person

Homa Naderifar

Position

Researcher

Latest degree

Ph.D.

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)
Yes - There is a plan to make this available
Study Protocol
Undecided - It is not yet known if there will be a plan to make this available
Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available
Informed Consent Form
Undecided - It is not yet known if there will be 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
Yes - There is a plan to make this available
Title and more details about the data/document
All data is potentially shareable after unidentified individuals
When the data will become available and for how long
Access period starts 6 months after the results are published
To whom data/document is available
Researchers working in academic and scientific institutions will be available
Under which criteria data/document could be used
Respect for spiritual rights
From where data/document is obtainable
Email address
What processes are involved for a request to access data/document
So send a request and observe the principles of intellectual property for a week
Comments