

Clinical Trial Protocol

Iranian Registry of Clinical Trials

05 Jul 2026

The effect of throwers ten exercises on neck pain, disability, scapular position and function of male basketball players

Protocol summary

Study aim

The effect of throwers ten exercises on neck pain, disability, scapular position and function of basketball players in Shiraz and Isfahan, 2018

Design

Randomized controlled clinical trial, double blinded, parallel group design, 36 patients

Settings and conduct

Shiraz and Isfahan gyms, Throwers ten exercises will be given to the intervention group (before sport exercises). Control group do only the routine sport exercises. For both groups, the pain (VAS), functional disability level (NDI), scapular position (Lateral scapular slide test and the distance between acromion posterior part and the lying area), performance test (basketball shoot precision test) will be measured (before, 3 and 6 weeks after initiation and 4 weeks after the termination of interventions). The examiner will not know about the study groups.

Participants/Inclusion and exclusion criteria

Inclusion criteria: age 18-30 Y/O, pain in Shoulder and neck during throwing, minimum and maximum duration of pain: one month and six months respectively, last week average pain: minimum of 30 mm (VAS), maximum was at a level that would not result in exercise interruption, absence of a history of shoulder and neck trauma which has led to exercise interruptions for more than 24 hours in a month. Exclusion criteria: history of cervical disks, repeated shoulder dislocation, fracture in the shoulder and neck, Pain following spinal surgery, rheumatic diseases, receiving physiotherapy during last month due to neck pain.

Intervention groups

Intervention group: Throwers ten exercises; designed to improve strength, power, and endurance of shoulder complex musculature (besides the athletes routine sport exercises) Control group: No intervention (athletes do only the routine sport exercises). An exercise brochure will give them after finishing the study.

Main outcome variables

Neck pain; functional disability; scapular position; throwing function

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20181006041246N1**

Registration date: **2018-12-24, 1397/10/03**

Registration timing: **prospective**

Last update: **2019-01-26, 1397/11/06**

Update count: **1**

Registration date

2018-12-24, 1397/10/03

Registrant information

Name

Mehran Nasaji

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 31 3627 0316

Email address

stud1270002015@sums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-02-09, 1397/11/20

Expected recruitment end date

2019-05-10, 1398/02/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date
empty

Scientific title
The effect of throwers ten exercises on neck pain, disability, scapular position and function of male basketball players

Public title
The effect of throwers ten exercises on neck pain, disability, scapular position and function of male basketball players

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria:
Age between 18 to 30 years old Athletes has pain at Shoulder and neck during throwing At least one month and a maximum of six months from the onset of pain Last week average pain: minimum of 30 mm (VAS), maximum was at a level that would not result in exercise interruption The absence of a history of trauma has led to discomfort in the shoulder and neck, resulting in interruptions in exercise for more than 24 hours in a month and the lack of remaining problems.
Exclusion criteria:
Having a history of cervical disks History of repeated dislocation of shoulder History of malignancy History of fracture in the shoulder and neck region Pain followed by spinal surgery, rheumatic and inflammatory diseases Receiving physiotherapy during last month due to neck pain.

Age
From **18 years** old to **30 years** old

Gender
Male

Phase
N/A

Groups that have been masked

- Investigator
- Outcome assessor
- Data analyser

Sample size
Target sample size: **36**

Randomization (investigator's opinion)
Randomized

Randomization description
Individuals entered into the study after the completion of the informed consent form are divided into two groups; test and control. The research randomization software and the permutation block method will be used to randomly divide the subjects to the two groups.

Blinding (investigator's opinion)
Double blinded

Blinding description
In this test, training exercises will be conducted by a physiotherapist and the tests will be done by another physiotherapist. Also the physiotherapist who will done the tests will not know the about the participants group.

Placebo

Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Shiraz University of Medical Sciences

Street address

Vice-Chancellor for Research, Shiraz University of Medical Sciences, Zand Blvd., Shiraz, Iran

City

Shiraz

Province

Fars

Postal code

71345-1978

Approval date

2018-09-26, 1397/07/04

Ethics committee reference number

IR.SUMS.REC.1397.513

Health conditions studied

1

Description of health condition studied

Neck pain

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Neck pain in Visual Analogue Scale index

Timepoint

Neck pain measurement at the beginning of the study (before the intervention) and 3, 6 and 10 weeks after the intervention

Method of measurement

Measuring of pain by the Visual Analogue Scale index

Secondary outcomes

1

Description

Functional Disability Level

Timepoint

At the beginning of the study (before the intervention)

and 3, 6 and 10 weeks after the intervention began

Method of measurement

Neck Disability Index

2

Description

Function of athletes

Timepoint

At the beginning of the study (before the intervention) and 3, 6 and 10 weeks after the intervention began

Method of measurement

Basketball shoot precision test

3

Description

The scapular position test

Timepoint

At the beginning of the study (before the intervention) and 3, 6 and 10 weeks after the intervention began

Method of measurement

Assessment of the distance between acromion posterior part and the lying area, as well as assessing the Lateral scapular slide test in 3 situation

Intervention groups

1

Description

Intervention group: Before the regular team exercises, they carry out the Throwers ten exercises. This group performs the exercises three times a week for 6 weeks each 3 sets 10 repetitions of each exercise. After 3 weeks, as well as at the end of 6 weeks, the participants are evaluated in terms of variables such as pain, functional disability, scapular bone positioning, and basketball throwing accuracy testing. Also, to evaluate the effect of treatment survival, 4 weeks after the intervention in the test group, the evaluations will be carried out again. Throwers ten exercises are designed to practice the great muscle needed for throwing action. All of these exercises are specifically designed for throwers to increase the strength, strength, and endurance of the shoulder muscle complex. What is needed in these exercises includes a dumbbell weighing two pounds, a lightweight trabund, and a towel. For each exercise, a set of ten repetitions is recommended once or twice a week. Do not feel pain during or after exercises

Category

Rehabilitation

2

Description

Control group: The control group does not practice any exercise before regular team training and there is no intervention until the end of the study. After the end of the study, the controlling group is trained by a physiotherapist.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Basketball halls of shiraz and Isfahan

Full name of responsible person

Mehran Nasaji

Street address

No. 19, Sadi Alley, Salman Ave., Daneshgah Blvd

City

Isfahan

Province

Isfahan

Postal code

8173938478

Phone

+98 31 3627 0316

Email

mehrandpt@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shiraz University of Medical Sciences

Full name of responsible person

Younes Ghasemi PhD

Street address

Vice-Chancellor for Research, Shiraz University of Medical Sciences, Zand Blvd., Shiraz, Iran

City

Shiraz

Province

Fars

Postal code

71345-1978

Phone

+98 71 3235 7282

Fax

+98 71 3212 2430

Email

vcrdep@sums.ac.ir

Web page address

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Shiraz 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**

Shiraz University of Medical Sciences

Full name of responsible person

Mehran Nasaji

Position

Master student

Latest degree

Bachelor

Other areas of specialty/work

Physiotherapy

Street address

No. 19, Sadi Alley, Salman Ave., Daneshgah Blvd

City

Isfahan

Province

Isfahan

Postal code

8173938484

Phone

+98 31 3627 0316

Email

mehrandpt@gmail.com

Person responsible for scientific inquiries**Contact****Name of organization / entity**

Shiraz University of Medical Sciences

Full name of responsible person

Mehran Nasaji

Position

Master student

Latest degree

Bachelor

Other areas of specialty/work

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Email

mehrandpt@gmail.com

Person responsible for updating data**Contact****Name of organization / entity**

Shiraz University of Medical Sciences

Full name of responsible person

Mehran Nasaji

Position

Master student

Latest degree

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Other areas of specialty/work

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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

Yes - There is a plan to make this available

Analytic Code

Not applicable

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

The results will be published as an article in the research international journals

When the data will become available and for how long

In the next 1 to 2 years

To whom data/document is available

Only people who ask the main investigator for the information

Under which criteria data/document could be used

With the permission through a written or oral request

From where data/document is obtainable

School of Rehabilitation Sciences. Shiraz University of Medical Sciences

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

With a written request, they can access the library of Shiraz University of Medical Sciences, School of rehabilitation Sciences

Comments