Clinical Trial Protocol
Iranian Registry of Clinical Trials

10 Jun 2026

Effect of eight week corrective exercise programme on pasture, Electromyography. Isokinetic strength and range of motion shoulder and neck in person with forward head posture

Protocol summary

Study aim

aimed to evaluate effect of 8 week selective corrective exercise programme on upper quadrant pasture and pasture, Electromyography. Isokinetic strength and range of motion in person with forward head posture

Design

The randomized controlled trial is a single blinded with a pre and post-test design. 36 people will participate in this study and will assign to two groups of training and control with 1:1 ratio, based on computer generated algorithm

Settings and conduct

before and after intervention, Head angle will be measured by photogrammetry, neck range of motion by universal goniometer by Clarkson method, and neck muscle surface activity by biometric electromyography with surface electrodes. The main evaluator is not aware of how individuals are assigned to the groups. participated were asked not to talk about the exercises they were taking with the assessor or anyone else who was not attending the training sessions.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Men with head forward more than 46 degrees, lack of regular participation in overhead activities , Exclusion criteria: history of surgery or fracture of the upper limbs and neck, scoliosis

Intervention groups

exercise group will receive corrective exercise program included stretching, strengthening, and stabilization exercises This 8-week training program will perform with three sessions per week, each lasting <50 minutes The control group does not receive any intervention. Participants confirmed that they did not undertake any specific exercise for their neck and shoulder griddle muscles during the duration of the study; however after the last measurement, they were offered a 1-hour individually supervised instruction of the exercise program.

Main outcome variables

A change in head posture, muscle strength and electromyography, head and shoulder range of motion

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200203046364N1**
Registration date: **2021-11-18, 1400/08/27**
Registration timing: **retrospective**

Last update: **2021-11-18, 1400/08/27**
Update count: **0**

Registration date

2021-11-18, 1400/08/27

Registrant information

Name

Rasoul Arshadi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 44 4526 4408

Email address

rasoul.arshady@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-07-11, 1400/04/20

Expected recruitment end date

2021-08-11, 1400/05/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of eight week corrective exercise programme on pasture, Electromyography. Isokinetic strength and range of motion shoulder and neck in person with forward head posture

Public title

The effect of a 8-week exercise program on head posture, muscle strength and muscle activity and neck and shoulder range of motion

Purpose

Education/Guidance

Inclusion/Exclusion criteria

Inclusion criteria:

fhp angle above 46, having not regular participation in overhead activities

Exclusion criteria:

Having a history of surgery or fractures of upper limbs or spine over the past year scoliosis neurologic disease

Age

From **20 years** old to **25 years** old

Gender

Male

Phase

N/A

Groups that have been masked

- Outcome assessor
- Data analyser

Sample size

Target sample size: **35**

Randomization (investigator's opinion)

Randomized

Randomization description

computer-based randomization was performed in a 1:1 ratio to exercise group or control group, using computer-generated permuted-block randomization (Random Allocation software version 1.0) with a random block size of 4 and 6. Sealed opaque envelopes were used to conceal random allocation. According to the sample size, letter envelopes were prepared and each of the random sequences was recorded on the card and placed in the letter envelopes, respectively. The letter envelopes were then stapled and placed in a box. Envelopes were also numbered in the same order to maintain a random sequence. Each participant opened one of the envelopes and thus allocation to each group was determined.

Blinding (investigator's opinion)

Single blinded

Blinding description

In this study, the assessors did not know which of the participants in the groups was being evaluated. To blind the assessors, they were not aware of the grouping of individuals (which group they were a member of). Also, the data analyzer was not aware of group allocation of participants. For this purpose, the data of groups was provided to the data analyzer in such a way that he was not informed about the grouping of individuals

Placebo

Not used

Assignment

Other

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Isfahan University of Medical Sciences

Street address

Azadi Sq., Isfahan university, sport science faculty

City

Isfahan

Province

Isfehan

Postal code

8174673441

Approval date

2018-02-24, 1396/12/05

Ethics committee reference number

IR.UI.REC.1396.044

Health conditions studied

1

Description of health condition studied

forward head posture

ICD-10 code

M62.9

ICD-10 code description

Disorder of muscle, unspecified

Primary outcomes

1

Description

muscle activity of neck and scapular muscle activity

Timepoint

before after corrective exercise implementation

Method of measurement

A portable surface EMG device (DataLog p3X8, Biometrics, UK)

2

Description

neck range of motion

Timepoint

Before training and one week after the end of the

training program

Method of measurement

Neck range of motion assessed in sagittal plane by Universal goniometer (baseline, USA)

3

Description

head angle

Timepoint

Before training and one week after the end of the training program

Method of measurement

by A digital camera (sony 14 megapixel, Japan) according photogrammetric method

4

Description

isiokinetic strength of shoulder

Timepoint

Before training and one week after the end of the training program

Method of measurement

shoulder strength was measured at 45 degree of shoulder abduction and 90 degree of elbow flexion by isokinetic dynamometer (biodex system 4)

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: The training program included stretching, strengthening, and stabilization exercises This 8-week training program will be performed with three sessions per week, each lasting <50 minutes. To enhance exercise efficacy, exercise variation was set according to the ACSM recommendations. All training sessions contained three phases: standard warm-up, the main part, and cool-down. the duration of the stretching exercises will be 30 seconds for the initial sessions, which will be added five more seconds every two weeks . Carnicervical flextion training consisted of movements that will be done without any load in prone and quadruped positions; and progression in these movements will be based on an increase in the repetition of correct movement, duration of holding given position, and the range of motion, as well.

Category

Rehabilitation

2

Description

Control group: Control group: will not do any special exercises, they are only asked to avoid participating in overhead activities or any strengthening activities that affect the upper quadrant area.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Tabriz medical science university

Full name of responsible person

Rasoul arshadi

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

university of Isfahan

Full name of responsible person

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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

university of Isfahan

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
University of Isafahan
Full name of responsible person
Rasoul Arshadi
Position
Consultant
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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
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
related data about outcomes
When the data will become available and for how long
one year after the publication of the article
To whom data/document is available
researchers, university students
Under which criteria data/document could be used
for study porpose
From where data/document is obtainable
Gholam Ali Ghasemi. Department of Sport Injuries and Corrective Exercises, Faculty of Sport Sciences, University of Isfahan, Isfahan, Iran
What processes are involved for a request to access data/document
Contact with Correspond author via Official Email
Comments