

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effects of progressive resistance training program of wrist extensors and supinators on pain, strength and function in athletes with chronic tennis elbow

Protocol summary

Study aim

Comparison of the effectiveness of progressive resistance training of wrist extensors and progressive resistance training of wrist extensors combined with supinator strengthening in athletes with chronic tennis elbow in reducing pain, increasing grip strength and function.

Design

The subjects (n=16) fulfilling inclusion criteria will be enrolled after independent outcome assessment. Randomization will be performed by using 16 number cards, folded and placed in a box, cards will be mixed thoroughly. The labeled cards 1-8 will be assigned to group A. Participants who will draw cards number 9-16 will be assigned to group B.

Settings and conduct

Pakistan sports board and usman clinic

Participants/Inclusion and exclusion criteria

Inclusion Criteria: Patients diagnosed with Chronic tennis elbow patients (3 months or more); Both gender; Subjects with age group 20-45 years; Willingness to participate in the study; Positive special test. Exclusion Criteria: Recent injury to elbow; History of Rheumatoid disease; Any deformity in the elbow or upper limb; Athletes with recent Corticosteroid injections; Skin infection; Peripheral nerve involvement in upper extremity; Dislocation of elbow joint.

Intervention groups

group A; this group will receive progressive resistance eccentric exercise training for wrist extensors. group B; this group will receive progressive resistance eccentric exercise training for wrist extensors along with supinator strengthening.

Main outcome variables

pain, grip strength, function.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210628051731N1**

Registration date: **2021-07-13, 1400/04/22**

Registration timing: **prospective**

Last update: **2021-07-13, 1400/04/22**

Update count: **0**

Registration date

2021-07-13, 1400/04/22

Registrant information

Name

Yakoot Saleemi

Name of organization / entity

Riphah international university

Country

Pakistan

Phone

+92 42 37802222

Email address

yakootsaleemi8@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-07-15, 1400/04/24

Expected recruitment end date

2021-11-15, 1400/08/24

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of progressive resistance training program of wrist extensors and supinators on pain, strength and function in athletes with chronic tennis elbow

Public title

Progressive resistance training of wrist extensors along with supinators strengthening in tennis elbow

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Patients diagnosed with Chronic tennis elbow patients (3 months or more) Both gender Subjects with age group 20-45 years Willingness to participate in the study Positive special test

Exclusion criteria:

Recent elbow injury Rheumatoid disease history Any elbow or upper limb deformity Athletes with recent corticosteroid injections Skin infection Peripheral nerve involvement in upper extremity Dislocation of elbow joint

Age

From **20 years** old to **45 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **16**

Randomization (investigator's opinion)

Randomized

Randomization description

It will be performed by using 16 numbered cards, folded and placed in a box. group A will assigned to the cards labeled as 1-8, will be owed to received Progressive resistance eccentric exercise of wrist extensors alone. Group B will be assigned to participants with draw result showed number 9-16 and it will decide to receive progressive resistance eccentric exercise of wrist extensors along with supinators strengthening. At the time of each subject randomization, it will be assured that cards will mixed together thoroughly. the randomization procedure is often replaced by computer techniques, but manual randomization is suitable for small sample size.

Blinding (investigator's opinion)

Single blinded

Blinding description

the study would be single blinded as assessor of the study will be kept blind of treatment group to which the patient will be allocated

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

research & ethics committee

Street address

street n0 14, house no 2p, rab rab colony Lahore.

City

Lahore

Postal code

54500

Approval date

2021-06-25, 1400/04/04

Ethics committee reference number

REC/RCR & AHS/21/0402

Health conditions studied

1

Description of health condition studied

LET or tennis elbow is a disease of origin of common extensor muscles at elbow. it is presenting with pain over the lateral epicondyle at elbow.

ICD-10 code

M77.10

ICD-10 code description

Lateral epicondylitis, unspecified elbow, grip strength, wrist extensors strengthening, supinator strengthening, tennis elbow, eccentric exercises

Primary outcomes

1

Description

pain

Timepoint

before intervention and after 1, 2 and 3 months

Method of measurement

pain by VAS, grip strength by hand dynamometer, functional status by PRTEEQ

Secondary outcomes

1

Description

Grip strength and functional disability

Timepoint

Baseline, after 1 month, after 2 months and after 3 months of treatment

Method of measurement

Hand grip will be measured by using hand dynamometer and functional disability will be measured by using PETEEQ (Patient rating tennis elbow evaluation)

questionnaire)

Intervention groups

1

Description

Intervention group: Group B, This group will perform progressive resistance eccentric exercise training for wrist extensors along with supinator strengthening.

Category

Rehabilitation

2

Description

Control group: Group A, this group will perform progressive resistance eccentric exercise training for wrist extensors only.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Pakistan Sports board and Usman clinic

Full name of responsible person

Yakoot Saleemi

Street address

street n0 14,house no 2p,rab rab colony Lahore.

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Email

yakootsaleemi8@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Riphah international university

Full name of responsible person

dr. Muzna Munir

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Grant name

Grant code / Reference number

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

No

Title of funding source

no source

Proportion provided by this source

100

Public or private sector

Private

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

Riphah International University

Full name of responsible person

Yakoot Saleemi

Position

Student

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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

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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

Not applicable

Informed Consent Form

Undecided - It is not yet known if there will be 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

EFFECTS OF PROGRSSIVE RESISTANCE TRAINING PROGRAM OF WRIST EXTENSORS AND SUPINATORS ON PAIN,STRENGTH AND FUNCTION IN ATHLETES WITH CHRONIC TENNIS ELBOW.

When the data will become available and for how long

at the end of 2021

To whom data/document is available

to all

Under which criteria data/document could be used

in form of article

From where data/document is obtainable

from email

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

through email address

Comments