Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

The effect of dry needling in tendons of forearm extensors to examine the amount of force grip, pain and functional ability in athletes with chronic tennis elbow

Protocol summary

Summary

Dry needling is a none invasive and cheap method with the effect of treatment in less time, so it seems to be a better way for treatment of athletes with chronic tennis elbow syndrome to decrease duration and costs of treatment. Type of this study is randomized clinical trial. The inclusion criteria is 44 athletes (age 18-40) with three sessions per week, each session at least six hours of practice or race that diagnosed with tennis elbow syndrome which is lasting more than 3 months. The exclusion criteria is the history of fractures or dislocations in the past year; the history of surgery in the past six months; degenerative changes and untreated infections or tumors in shoulder or elbow and needle phobia. The first group takes physical therapy treatments include ultrasound (continuous, 1 W, 5 minutes) at origin of extensor muscles of forearm and fingers, friction massage for 5 minutes and strengthening with stretching exercises. The second group takes physical therapy along with dry needling. The duration of treatment is three week, three sessions per week. At the beginning of treatment, second and third week and also at the end of third week athletes should fill out the evaluation form for elbow area and grip strength test will be performed. These steps repeat at the end of fourth week as follow up. It seems both methods of treatments will change the amount of pain, function and grip strength of athletes with but our hypothesis is that using dry needling along with physical therapy will be more effective.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016040827284N1**
Registration date: **2016-06-16, 1395/03/27**
Registration timing: **prospective**
Last update:
Update count: **0**

Registration date

2016-06-16, 1395/03/27

Registrant information

Name

Zahra Etminan

Name of organization / entity

Shiraz university of medical sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Vice President of Research of Shiraz University of Medical Sciences

Expected recruitment start date

2016-06-21, 1395/04/01

Expected recruitment end date

2016-08-22, 1395/06/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of dry needling in tendons of forearm extensors to examine the amount of force grip, pain and functional ability in athletes with chronic tennis elbow

Public title

The effect of dry needling for chronic tennis elbow

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: athletes diagnosed with tennis elbow syndrome, who have 3 sessions per week, each session at least 6 hours of practice or race, with compliance of symptoms more than 3 months. The athletes should have pain at lateral epicondyle area that increases during or after movements and the diagnostic test is positive too; age of participants should be 18-40.
exclusion criteria: history of fracture or dislocation at shoulder or elbow in the past year; the history of surgery in the past 6 months; degenerative changes at elbow or shoulder; untreated infection or tumors at elbow or shoulder; Pressure on the cervical nerve roots; person with radial tunnel syndrome; impingement of nerves at arm and forearm

Age

From **18 years** old to **40 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **44**

Randomization (investigator's opinion)

Randomized

Randomization description

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

Shiraz Univercity of Medical Siences

Street address

Zand Ave.

City

Shiraz

Postal code

Approval date

2016-02-17, 1394/11/28

Ethics committee reference number

IR.SUMS.REC.1394.202

Health conditions studied

1

Description of health condition studied

choronic tennis elbow syndrome

ICD-10 code

M65-M68

ICD-10 code description

Disorders of synovium and tendon

Primary outcomes

1

Description

pain

Timepoint

beginning of first,second,third and also at the end of third and forth week

Method of measurement

patient rate elbow evaluation questionnaire

2

Description

function

Timepoint

beginning of first,second,third and also at the end of third and forth week

Method of measurement

patient rate elbow evaluation questionnaire

3

Description

grip strenght

Timepoint

beginning of first,second,third and also at the end of third and forth week

Method of measurement

hand dynamometer

Secondary outcomes

1

Description

none

Timepoint

none

Method of measurement

none

Intervention groups

1

Description

The control group take physical therapy treatments include ultrasound (continuous, 1 W, 5 minutes) at origine of extensore muscles of forearm and fingers,

friction massage for 5 minutes and strengthening and stretching exercises 3 sessions per week foe 3 weeks.

Category

Rehabilitation

2

Description

The intervention group take physical therapy along with dry needling 3 sessions per week for 3 weeks.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

sport clubs

Full name of responsible person

Zahra Etminan

Street address

City

Shiraz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

none

Full name of responsible person

none

Street address

none

City

none

Grant name

Grant code / Reference number

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

Yes

Title of funding source

none

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

empty

Person responsible for general inquiries

Contact

Name of organization / entity

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Full name of responsible person

Zahra Etminan

Position

student

Other areas of specialty/work

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
empty
Study Protocol
empty
Statistical Analysis Plan
empty
Informed Consent Form
empty
Clinical Study Report
empty
Analytic Code
empty
Data Dictionary
empty