Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparison of the upper trapezius and the infraspinatus trigger point therapy by dry needling in overhead athletes with unilateral shoulder pain: a double-blind randomized clinical trial

Protocol summary

Summary
The oroginal purpose of this study is to compare two effects of dry needling: direct effect of dry needling of upper trapezius and remote effect of dry needling of infraspinatus muscle on pain and tissue sensitivity of myofascial trigger points of upper trapezius muscle. method: 40 overhead athletes with shoulder impingement syndrome and active trigger points in both upper trapezius and infraspinatus has been entered the study. Exclusion criteria was common contraindications of dry needling and cognitive problems and trigger point treatment in the last month.Participants was divided randomely into 2 groups of dirrect needling of upper trapezius and needling of infraspinatus. Intervention was done in 3 sessions with 3 days interval. Assessment of subjective pain, pressure pain threshold and pain and disability index for upper extremity was done just before and after 2 day of treatment sessions.

General information

Acronym
IRCT registration information
IRCT registration number: **IRCT2015120825437N1**
Registration date: **2016-01-08, 1394/10/18**
Registration timing: **retrospective**

Last update:
Update count: **0**
Registration date
2016-01-08, 1394/10/18

Registrant information
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Recruitment status
Recruitment complete
Funding source
Shiraz University of Medical Sciences

Expected recruitment start date
2015-03-06, 1393/12/15
Expected recruitment end date
2015-08-06, 1394/05/15
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparison of the upper trapezius and the infraspinatus trigger point therapy by dry needling in overhead athletes with unilateral shoulder pain: a double-blind randomized clinical trial

Public title
Remote effect of dry needling on pain and tissue sensitivity of muscles trigger points.
Purpose
Treatment
Inclusion/Exclusion criteria
incusion criteria: overhead athletes; between 18_ 60 years old; shoulder impingement syndrome; active myofascial trigger points in both upper trapezius and infraspinatus muscles. exclusion criteria :local trauma and infection; anti-coagulant drugs consumption;

pregnancy with risk of abortion; heart disease and immune system disease; addiction; cognitive problems; history of surgery on neck and upper back; neurologic deficit; seious medical conditions; cervical radiculopathy; trigger treatment in the past month

Age
From **18 years** old to **60 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **40**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Double blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Shiraz University of Medical Sciences

Street address
Zand blvd, Shiraz, Iran

City
Shiraz

Postal code

Approval date
2015-03-02, 1393/12/11

Ethics committee reference number
ct-9373-7403

Health conditions studied

1

Description of health condition studied
shoulder and arm pain

ICD-10 code
M25.5, M79

ICD-10 code description
M25.5 pain in joint, M79.6 pain in limb

Primary outcomes

1

Description
subjective pain

Timepoint
before and 3 days after intrvention

Method of measurement
visual analogue scale

2

Description
tissue sensitivity (pressure pain threshold)

Timepoint
before and 3 days after intrvention

Method of measurement
digital algometry

3

Description
disability index of upper extremity

Timepoint
before and 3 days after intrvention

Method of measurement
DASH questionnair

Secondary outcomes

empty

Intervention groups

1

Description
direct intervention group(control): upper trapezius trigger point dry needling in 3 sessions with 3 days interval

Category
Other

2

Description
indirect intervention group (intervention):infraspinatus muscle trigger point dry needling in 3 sessions with 3 days interval

Category
Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Iran Zamin polyclinic

Full name of responsible person
Maryam Morovati

Street address
Golestan town
City
Shiraz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Shiraz University of Madical Sciences
Full name of responsible person
Mr. MirAlaie
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Rehabilitatin faculty, Abiverdi 1 avenue, Chamran blvd.
City
Shiraz
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Shiraz University of Madical Sciences
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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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