Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

A comparative study of diclofenac phonophorosis and ergonomic instructions on reducing neck and shoulder pain in women with myofascial trigger points in trapezius muscle

Protocol summary

Summary

The purpose of this study was to compare the effects of diclofenac phonophoresis with ergonomic instructions on reducing neck and shoulder pain and disability in women with myofascial trigger points in trapezius muscle. This randomized controlled trial was performed in Zahedan University of Medical Sciences, in 2009. Thirty patients with trigger points in trapezius muscle were participated through simple non probability sampling. Patients were selected based on following inclusion criteria: Age between 18-25, having trigger point in trapezius muscles with main complaint: muscle pain without neurological sign, no history of respiratory diseases, surgery, and neck & thoracic spine structural disorders. Patients were excluded if they had insufficient treatment, using other therapeutic modalities during study, trauma and surgery during the study. Patients were randomly assigned to one of three equal groups: diclofenac phonophoresis, ergonomic instructions, and control groups. In phonophoresis group, frequency of ultrasound 1 MHz, continuous mode, intensity 1.5 W/cm2 and duration 4.5 min was used. Ergonomic group received instructions in order to maintain appropriate posture during activity of daily livings. Control group received ultrasound without output. A 12 session treatment program, during 4 weeks, 3 sessions per week was performed. Before and after intervention, we assessed neck pain with Northwick Park Neck Pain Questionnaire and shoulder pain and disability with Shoulder Pain and Disability Index.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201112261675N10**
Registration date: **2012-02-01, 1390/11/12**
Registration timing: **retrospective**
Last update:
Update count: **0**

Registration date

2012-02-01, 1390/11/12

Registrant information

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Name of organization / entity

Zahedan University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor for Research, Zahedan University of Medical Sciences.

Expected recruitment start date

2011-04-21, 1390/02/01

Expected recruitment end date

2011-10-23, 1390/08/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

A comparative study of diclofenac phonophorosis and ergonomic instructions on reducing neck and shoulder pain in women with myofascial trigger points in trapezius muscle

Public title
A comparative study of diclofenac phonophorosis and ergonomic instructions on reducing neck and shoulder pain in women with myofascial trigger points in trapezius muscle
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria: Age between 18-25, having trigger point in trapezius muscles with main complaint: muscle pain without neurological sign; no history of respiratory diseases; surgery, and neck & thoracic spine structural disorders. Exclusion criteria: no completion of the treatment; using other therapeutic modalities during study; trauma and surgery during the study.
Age
From **18 years** old to **25 years** old
Gender
Female

Phase
2
Groups that have been masked
No information
Sample size
Target sample size: **30**
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

1

Registry name
no registration
Secondary trial Id
no trial id
Registration date
empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics Committee of University of Sistan and Baluchestan
Street address
Daneshgah Blvd., University of Sistan and Baluchestan
City
Zahedan
Postal code
987-98155
Approval date
2012-01-08, 1390/10/18
Ethics committee reference number
902.21.245

Health conditions studied

1

Description of health condition studied
subjects with trigger points in trapezius muscle
ICD-10 code
M62
ICD-10 code description
Other soft tissue disorders

Primary outcomes

1

Description
Neck pain
Timepoint
Before intervention,4 weeks after intervention
Method of measurement
Northwick Park Neck Pain Questionnaire

2

Description
Shoulder pain and disability
Timepoint
Before intervention,4 weeks after intervention
Method of measurement
Shoulder Pain and Disability Index

Secondary outcomes

1

Description
No secondary outcome
Timepoint
No secondary outcome
Method of measurement
No secondary outcome

Intervention groups

1

Description
Diclofenac phonophoresis group: In phonophoresis group, frequency of ultrasound 1 MHz, continuous mode, intensity 1.5 W/cm2 and duration 4.5 min for diclofenac phonophoresis was used.
Category
Rehabilitation

2

Description
Ergonomic instructions group: Ergonomic group received instructions in order to maintain appropriate posture during activity of daily livings.
Category
Rehabilitation

3

Description
Control group: Ultrasound without output
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Razmejo-Moghadam Physiotherapy
Full name of responsible person
Dr. Asghar Akbari
Street address
Dept. of Physiotherapy, School of Rehabilitation Sciences, Razmejo-Moghadam Laboratory, Ayatoallah Kafami St., Zahedan
City
Zahedan

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice Chancellor for Research of Zahedan University of Medical Sciences
Full name of responsible person
Dr. Hamidreza Mahmoudzadeh Sagheb
Street address
Deputy of Research, Zahedan University of Medical Sciences, Jannat Blvd., Dr. Hesabi Sq., Zahedan.
City
Zahedan
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice Chancellor for Research of Zahedan University of Medical 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
Zahedan University of Medical Sciences
Full name of responsible person
Dr. Asghar Akbari
Position
Ph.D in Physiotherapy, Head of Dept. of Physiotherapy.
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Person responsible for updating data

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Head of Dept. of Physiotherapy, Ph.D in Physiotherapy

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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