Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

The Effects of Ischemic Compression, Phonophoresis of Hydrocortisone and Ultrasound on Some of the Clinical Parameters in Latent Myofascial Trigger Point of the Upper Trapezis Muscle

Protocol summary

Summary

Introduction: Myofacial trigger points(MTrPs) is a sensitive nodule in palpable taut band that may be active or latent. As high as 85% to 93% of patients presenting to specialty pain management centers are given with MTrPs. There are some treatments for MTrPs in two types of manual and electrical medicine. In manual medicine, ischemic compression is a common treatment. The aim of this study was to investigate the effects of ischemic compression, phonophoresis of Hydrocortison1% and ultrasound on pain, pain pressure threshold and cervical lateral flexion in muscles with MTrPs. Material & Methods: this study was interventional. Sixty subjects, aged 20-30 years old diagnosed with MTrPs in the upper trapezius muscle participated in this study. The main factor was presensed of a hypersensitive tender spot in the taut band inresponse to 25N or lesser. subjects were randomly divided into four groups: which were treated with ischemic compression, phonophoresis of Hydrocortisone, ultrasound and control group. In all six sessions the treatments and assesments were done. The factors were pain, pain pressure threshold and cervical lateral flexion in 2 direction.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT138903194134N1**
Registration date: **2010-09-23, 1389/07/01**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2010-09-23, 1389/07/01

Registrant information

Name
Amir Ahmadi
Name of organization / entity
Rehabilitation collage of Iran university of medical science
Country
Iran (Islamic Republic of)
Phone
00982122227159 353 داخلي
Email address
amirahmadi@tums.ac.ir

Recruitment status

Recruitment complete

Funding source

Iran medical science university

Expected recruitment start date

2010-09-23, 1389/07/01

Expected recruitment end date

2010-12-22, 1389/10/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Effects of Ischemic Compression, Phonophoresis of Hydrocortisone and Ultrasound on Some of the Clinical Parameters in Latent Myofascial Trigger Point of the Upper Trapezis Muscle

Public title

the evidence of three treatments on trigger points

Purpose

Treatment

Inclusion/Exclusion criteria

inclusion: 1. Presence of a palpable taut band in a skeletal muscle 2. Presence of a nodule 3. Presence of a hypersensitive tender spot in the taut band in response to 25 N or lesser. exclusion: 1. Diagnosis of fibromyalgia syndrome 2. History of a whiplash injury 3. History of cervical spine surgery 4. Diagnosis of cervical radiculopathy or myelopathy determined by their primary care physician 5. Having myofascial therapy with in the past month before the study 6. presence of spontaneous the typical referred pain pattern (Active Trigger Point) 7. Presence of a Jump sign 8. The period menstrual cycle 9. Presence of Postural disorders

Age
From **20 years** old to **30 years** old

Gender
Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **60**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Double blinded

Blinding description

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Iran University of Medical Sciences

Street address
Faculty of Rehabilitation, Nezam Alley, Shahnazari Ave., Mohseni Sq., Tehran, Iran

City
Tehran

Postal code

Approval date
2010-01-01, 1388/10/11

Ethics committee reference number
216

Health conditions studied

1

Description of health condition studied
Trigger Point in Trapezius muscle

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
Pain

Timepoint
Every day for 6 days

Method of measurement
By Algometer

2

Description
Pain Pressure Threshold

Timepoint
Every day for 6 days

Method of measurement
By Algometer

Secondary outcomes

1

Description
Range of Motion

Timepoint
Every day for 6 days

Method of measurement
By Inclinometer

Intervention groups

1

Description
Control group received usual care

Category
N/A

2

Description
In the one treatment group phonophoresis hydrocortison was used

Category
Treatment - Drugs

3

Description
In other treatment group ultrasuond was used

Category
Other

4

Description

In other treatment group ischemic compression was used

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Clinic of Physical Therapy, Iran University of Medical Sciences

Full name of responsible person

Mrs. Nikjoee

Street address

Faculty of Rehabilitation, Nezam Alley, Shahnazari Ave., Mohseni Sq., Tehran, Iran

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Iran University of Medical Sciences

Full name of responsible person

Mrs. Kordlo

Street address

Faculty of Rehabilitation, Nezam Alley, Shahnazari Ave., Mohseni Sq., Tehran, Iran

City

Tehran

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Iran 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

Iran University of Medical Sciences

Full name of responsible person

Dr. Amir Ahmadi

Position

Assistant professor

Other areas of specialty/work

Street address

Faculty of Rehabilitation, Nezam Alley, Shahnazari Ave., Mohseni Sq., Tehran, Iran

City

Tehran

Postal code

Phone

+98 21 2222 7159

Fax

Email

amirahmadi@iums.ac.ir

Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity

Iran University of Medical Sciences

Full name of responsible person

Dr. Javad Sarrafzade

Position

Assistant professor

Other areas of specialty/work

Street address

Faculty of Rehabilitation, Nezam Alley, Shahnazari Ave., Mohseni Sq., Tehran, Iran

City

Tehran

Postal code

Phone

+98 21 2222 7159

Fax

Email

jsarafzadeh@gmail.com

Web page address

Person responsible for updating data

Contact

Name of organization / entity

Iran University of Medical Sciences

Full name of responsible person

Marzieh Yassin

Position

Student

Other areas of specialty/work

Street address

Faculty of Rehabilitation, Nezam Alley, Shahnazari Ave., Mohseni Sq., Tehran, Iran

City

Tehran

Postal code

Phone

Fax

Email

m.yassin.pt@gmail.com

Web page address

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