# Immediate effect of ultrasound and ischaemic compression techniques for the treatment of trapezius myofascial trigger points in patiens with neck pain: A randomized controlled study.

No registrations found.

| | |
|---|---|
| **Ethical review** | Positive opinion |
| **Status** | Recruitment stopped |
| **Health condition type** | - |
| **Study type** | Interventional |

## Summary

### ID

NL-OMON24474

**Source**
NTR

**Brief title**
Myofascial Pain Syndrome, Myofascial Trigger Points, Musculoskeletal Manipulations, Ultrasonic Therapies, Pain Measurement

**Health condition**

Neck pain

### Sponsors and support

**Primary sponsor:** CEU-Cardenal Herrera University
**Source(s) of monetary or material Support:** No funding source

### Intervention

## Outcome measures

### Primary outcome

1. Active range of motion of cervical rachis (lateral flexion), measured with a cervical range of motion instrument;

2. Basal electrical activity of trapezius muscle, measured using a surface electromyography;

3. Pressure Tolerance, using a pressure analog algometer. A pressure of 2.5 kg/cm² will be applied on myofascial trigger point. A visual analog scale will record the sensation the subject perceived in that moment.

### Secondary outcome

Analyze the data obtained taking into account the age and sex of subjects, to establish effectiveness criteria.

# Study description

### Background summary

The purpose of this study was to determine immediate effects of ischemic compression (IC) and ultrasound (US) for the treatment of myofascial trigger points (MTrPs) in the trapezius muscle in patients with neck pain.

Subjects will be randomly distributed into three groups G1, will receive IC treatment for MTrPs; G2, will receive US; and G3 (control), will receive sham US. The following data will be recorded before and after each treatment: active range of motion (AROM) of cervical rachis measured with a cervical range of motion instrument, basal electrical activity (BEA) of muscle trapezius measured with surface electromyography, and pressure tolerance of MTrP measured with visual analogue scale assessing local pain evoked by the application of 2.5 kg/cm2 of pressure using a pressure analog algometer.

### Study objective

The treatment of Myofascial Trigger Points (MTrPs) in the trapezius muscle with ischaemic compression and ultrasound originated a short-term improvement of cervical mobility, relaxation of trapezius, and reduction of its sensitivity in patiens with neck pain.

### Study design

Immediate.

**Intervention**

Ultrasound and ischaemic compression techniques. There are three groups:

1. G1, which will receive ischemic compression on myofascial trigger point;

2. G2, which will receive ultrasound;

3. G3 (control), which receive sham ultrasound (the ultrasound is disconnected).

# Contacts

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# Eligibility criteria

## Inclusion criteria

1. 25-65 age;

2. Neck pain.

## Exclusion criteria

1. Analgesic usage within the previous 24 hours;

2. Fail to identify MTrPs of the trapezius clearly;

3. History of cervical surgery;

4. Having undergone myofascial pain treatment within the previous month to the study;

5. History of cervical whiplash.

# Study design

## Design

| | |
|---|---|
| Study type: | Interventional |
| Intervention model: | Parallel |
| Allocation: | Randomized controlled trial |
| Masking: | Double blinded (masking used) |
| Control: | Placebo |

## Recruitment

NL

| | |
|---|---|
| Recruitment status: | Recruitment stopped |
| Start date (anticipated): | 06-11-2009 |
| Enrollment: | 66 |
| Type: | Actual |

# Ethics review

Positive opinion

| | |
|---|---|
| Date: | 30-10-2009 |
| Application type: | First submission |

# Study registrations

## Followed up by the following (possibly more current) registration

No registrations found.

## Other (possibly less up-to-date) registrations in this register

No registrations found.

## In other registers

| Register | ID |
|---|---|
| NTR-new | NL1984 |
| NTR-old | NTR2101 |
| Other | Ethical Committee of the Research Commission of CEU-Cardenal Herrera University : 69 (09 nov 2009) |
| ISRCTN | ISRCTN wordt niet meer aangevraagd. |

# Study results

**Summary results**

Montañez et al, IMMEDIATE EFFECT OF ULTRASOUND AND ISCHEMIC COMPRESSION TECHNIQUES FOR THE TREATMENT OF TRAPEZIUS LATENT MYOFASCIAL TRIGGER POINTS IN HEALTHY SUBJECTS: A RANDOMIZED CONTROLLED STUDY. J Manipulative Physiol Ther 2009;32:515-520.