

Effect of dry needling in headache and neck pain of muscular origin

Submission date 01/06/2012	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 02/08/2012	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
Last Edited 22/06/2017	Condition category Musculoskeletal Diseases	<input type="checkbox"/> Individual participant data

Plain English summary of protocol

Background and study aims

The aim of this study is to find out whether dry needling of the lower trapezius muscle reduces head and neck pain. Dry needling involves inserting a "dry" needle without medication through the skin into the muscle. The study looks at whether dry needling is more effective when performed in the most hyperalgesic (sensitive to pain) area than when it is performed in another area.

Who can participate?

Patients with head and neck pain for 3 months

What does the study involve?

Participants are randomly allocated to one of two groups. One group is treated with dry needling in the hyperalgesic zone in the lower trapezius muscle. The other group receives treatment with dry needling in a non-painful area in the same muscle. The participants' pain and degree of disability are assessed before, immediately after, a week and one month after receiving the treatment.

What are the possible benefits and risks of participating?

Patients may benefit from the positive effects of treatment with dry needling. The study may demonstrate the importance of treatment with dry needling in the area of muscle injury associated with the patient's problem. The most important risk associated with dry needling is a certain tenderness after the puncture.

Where is the study run from?

University of Alcalá (Spain)

When is the study starting and how long is it expected to run for?

January to December 2011

Who is the main contact?

Dr Daniel Pecos-Martin

Contact information

Type(s)

Scientific

Contact name

Dr Daniel Pecos-Martin

Contact details

c/Camilo José Cela, 53 Portal A-1°C
Alcalá de Henares
Spain
28806

Additional identifiers

Protocol serial number

N/A

Study information

Scientific Title

Effectiveness of treatment with dry needling lower trapezius muscle in patients with head and neck pain

Study objectives

Treatment with dry needling lower trapezius muscle improves pain and disability associated with neck pain patients. Treatment is most effective when performed in the most hyperalgesic area of this muscle and associated with the patient's pain.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Ethics Committee of Hospital Principe de Asturias, 10/01/2010, ref: 28/2009

Study design

Randomized double-blind clinical trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Head and neck pain

Interventions

Patients in the experimental group underwent a session of dry needling in the most hyperalgesic lower trapezius muscle with an acupuncture needle of 2.5 centimeters long and 0.25 millimeters thick. Technique was used as a therapeutic procedure.

Patients in the control group received the same treatment but at a distance from the point of that muscle hyperalgesic.

Both groups were followed for one month.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

1. The differences between groups in pain sensation the patient assessed using Visual Analogue Scale (VAS). This scale was completed by patients before, week and month after surgery.
2. The problem associated with head and neck

Key secondary outcome(s)

1. The pain threshold to pressure measured with a pressure algometer before, immediately after, week and month after surgery. The most hyperalgesic zone in lower trapezius muscle was measured.
2. The degree of disability associated with neck pain with the questionnaire Northwick Park neck pain before and one month after the intervention.

Completion date

15/12/2011

Eligibility**Key inclusion criteria**

1. Adult
2. Having pain in head and neck regions for three months
3. Present the lower trapezius muscle PGM3 active
4. Not having suffered any whiplash
5. Not having received invasive treatment in the last six months
6. Signing the consent form and accept the conditions of the study

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

1. Not accepted the conditions of the study and gave written informed consent
2. Those whose head and neck pain was shorter than three months
3. No active file PGM3 lower trapezius muscle
4. Those who had suffered some whiplash
5. Those diagnosed with migraine or tension headache
6. They had received invasive treatment in the last six months
7. They were afraid of needles
8. They were under pharmacological treatment with anticoagulants

Date of first enrolment

10/01/2011

Date of final enrolment

15/12/2011

Locations**Countries of recruitment**

Spain

Study participating centre

c/Camilo José Cela, 53 Portal A-1ºC

Alcalá de Henares

Spain

28806

Sponsor information**Organisation**

Alcalá University (Spain)

ROR

<https://ror.org/04pmn0e78>

Funder(s)**Funder type**

University/education

Funder Name

Universidad de Alcalá

Alternative Name(s)

University of Alcalá, University of Alcalá, UAH

Funding Body Type

Government organisation

Funding Body Subtype

Local government

Location

Spain

Results and Publications

Individual participant data (IPD) sharing plan**IPD sharing plan summary**

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/05/2015		Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes