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

Submission date
01/06/2012

Recruitment status
No longer recruiting

Registration date
02/08/2012

Overall study status
Completed

Last Edited
22/06/2017

Condition category
Musculoskeletal Diseases

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] 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

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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 assesed 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
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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