Fascia manipulation for the treatment of muscle pain

| Submission date | Recruitment status No longer recruiting | [X] Prospectively registered | | |
|-------------------------------|--|--------------------------------|--|--|
| 11/12/2019 | | ☐ Protocol | | |
| Registration date | Overall study status | Statistical analysis plan | | |
| 15/01/2020 | Completed | [X] Results | | |
| Last Edited 27/02/2023 | Condition category Musculoskeletal Diseases | [] Individual participant data | | |
| 21/02/2023 | Minachinavererar Diaeases | | | |

Plain English summary of protocol

Background and study aims

Muscle pain (myofascial pain) is a clear problem whose source is not fully understood. It may be a consequence of wrong fascial tension. It is assumed that restoration of the right fascial tension using manual methods, including deep massage (Fascia Manipulation [FM]), can reduce the patient's pain sensation.

Who can participate?

People of 18-40 years old of all genders with musculoskeletal pain for at least 1 week or healthy people for the control group

What does the study involve?

Participants will be randomly allocated to one of three therapies of Fascial Manipulation (different methods in different groups) or no treatment at all (control group).

What are the possible benefits and risks of participating?

Possible benefits: Reduction in myofascial pain and improvement in quality of life.

Risks: local pain caused by deep friction massage.

Where is the study run from?

The Jerzy Kukuczka Academy of Physical Education in Katowice, Poland

When is the study starting and how long is it expected to run for? January 2020 to July 2021

Who is funding the study?

The Jerzy Kukuczka Academy of Physical Education in Katowice, Poland

Who is the main contact? Mateusz Pawlukiewicz m.pawlukiewicz@awf.katowice.pl

Contact information

Type(s)

Public

Contact name

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Additional identifiers

EudraCT/CTIS number

Nil known

IRAS number

ClinicalTrials.gov number

Nil known

Secondary identifying numbers

(1/2017)

Study information

Scientific Title

Evaluation of Fascial Manipulation method on effectiveness in treatment of myofascial pain: a randomised controlled trial of various treatment protocols and their influence on pain levels, the reactivity of soft tissues, change in USG imaging (including elastography), EMG, range of motion, function, and Neurac's tests

Study objectives

Standard treatment protocol of Fascial Manipulation method has better effects than modified protocols or controls

Ethics approval required

Old ethics approval format

Ethics approval(s)

Approved DATE, The Jerzy Kukuczka Academy of Physical Education Ethics Committee (Uczelniana Komisja Bioetyczna AWF Katowice, ul. Mikołowska 72a, 40-065 Katowice, Poland; +48 322075152; a.smykla@awf.katowice.pl) ref: (1/2017)

Study design

Double-blinded randomized control trial

Primary study design

Interventional

Secondary study design

Randomised controlled trial

Study setting(s)

Other

Study type(s)

Treatment

Participant information sheet

Not available in web format, please use contact details to request a participant information sheet.

Health condition(s) or problem(s) studied

Myofascial pain

Interventions

Patients will be randomly allocated (using a computer program) to one of three groups, where each group will have a different therapy protocol and there will be a control group with no therapy as well. Each protocol will involve three treatments at intervals of 7-10 days, and a follow-up examination after 30 days. Study will be single-centre, and will take place at the premises of The Jerzy Kukuczka Academy of Physical Education.

Patients in treatments groups will undergo a Fascial Manipulation therapy (with different protocols), while the control group will not have any treatment. Patients will be randomly allocated to each group, using a computer program. Each protocol group will involve three treatments at intervals of 7-10 days, and a follow-up examination after 30 days.

Group 1: fascial manipulations according to the Stecco's concept (manipulation of 2 most densified myofascial trains, that stand in opposition to each other)

Group 2: fascial manipulations according to modified Stecco's protocol (manipulation of 2 myofascial trains, that stand in opposition to each other, but not that much densified as points of first group)

Group 3: fascial manipulations of random Stecco's centers of coordination Control group: no treatment was provided

Intervention Type

Other

Primary outcome measure

Measured before and after first therapy, after third therapy and after 30 days (follow-up):

- 1. Pain levels VAS scale
- 2. Reactivity of soft tissues MyotonPro device

Secondary outcome measures

Measured before and after first therapy, after third therapy and after 30 days (follow-up):

- 1. Change in USG imaging (including elastography) (USG Device)
- 2. EMG (EMG device)
- 3. Range of motion (digital inclinometer)
- 4. Function (FMS)
- 5. Proprioception (kinesthesia tests)
- 6. Neuromuscular activation test using Neurac test protocol.

Overall study start date

10/01/2017

Completion date

31/07/2021

Eligibility

Key inclusion criteria

- 1. Age 18-40
- 2. Presence of musculoskeletal pain for at least 1 week or healthy with no pain (for control group)

Participant type(s)

Other

Age group

Adult

Lower age limit

18 Years

Upper age limit

40 Years

Sex

Both

Target number of participants

100

Total final enrolment

54

Key exclusion criteria

- 1. Coexistence of a chronic or systemic disease
- 2. Pregnancy

- 3. Taking steroids, anti-inflammatory drugs or drugs that change blood coagulability
- 4. Acute injuries
- 5. Acute surgical interventions
- 6. The use of other therapeutic forms
- 7. Serious neurological disorders

Date of first enrolment

15/01/2020

Date of final enrolment

20/04/2021

Locations

Countries of recruitment

Poland

Study participating centre

The Jerzy Kukuczka Academy of Physical Education

Mikołowska 72A Katowice Poland 40-065

Sponsor information

Organisation

The Jerzy Kukuczka Academy of Physical Education

Sponsor details

Mikołowska 72A Katowice Poland 40-065 +48 32 207 51 10 rektorat@awf.katowice.pl

Sponsor type

University/education

Website

https://www.awf.katowice.pl/

ROR

https://ror.org/05wtrdx73

Funder(s)

Funder type

University/education

Funder Name

The Jerzy Kukuczka Academy of Physical Education in Katowice

Results and Publications

Publication and dissemination plan

Planned publication in a high-impact peer-reviewed journal

Intention to publish date

30/09/2020

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are not expected to be made available due to ethics restriction on sharing data.

IPD sharing plan summary

Not expected to be made available

Study outputs

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|-----------------|---------|--------------|------------|----------------|-----------------|
| Results article | | 04/08/2022 | 27/02/2023 | Yes | No |