# Role of myofascial trigger points in fibromyalgia

Submission date	<b>Recruitment status</b> No longer recruiting	<ul><li>Prospectively registered</li><li>Protocol</li></ul>	
10/02/2011			
Registration date	Overall study status	Statistical analysis plan	
04/03/2011	Completed	[X] Results	
<b>Last Edited</b> 30/03/2011	Condition category  Musculoskeletal Diseases	[] Individual participant data	

## Plain English summary of protocol

Not provided at time of registration

# Contact information

# Type(s)

Scientific

#### Contact name

Prof Hong-You Ge

#### Contact details

Fredrik Bajers Vej 7D-3 Aalborg Denmark DK-9220

# Additional identifiers

#### Protocol serial number

AFSA Check number 1403

# Study information

#### Scientific Title

Fibromyalgia pain reproduction by manual stimulation of active myofascial trigger points as compared to latent myofascial trigger points in health controls in pain intensity and pain area

### **Study objectives**

It has previously been reported that local and referred pain from active myofascial trigger points (MTPs) in the neck shoulder region contribute to fibromyalgia (FM) pain and that the pain

pattern induced from active MTPs can reproduce parts of the spontaneous clinical FM pain pattern. The hypothesis of current study is that the overall spontaneous FM pain pattern can be reproduced by local and referred pain from active MTPs located in different muscles.

#### Ethics approval required

Old ethics approval format

#### Ethics approval(s)

Ethics Committee for Region Nordjylland, Denmark, approved on the 8th July 2008 (ref: VN 20080018)

#### Study design

Randomised single-blind healthy-controlled single-centre trial

#### Primary study design

Interventional

## Study type(s)

Treatment

## Health condition(s) or problem(s) studied

Fibromyalgia syndrome

#### **Interventions**

Manual identification of MTPs in different muscles was done by snapping palpation (first to locate a taut band of muscle and place the fingertip at right angles and then move the thumb tip back and forth to roll the underlying fibres) to induce local twitch response and flat palpation (use the padded aspect of the thumb at a right angle to the muscle fibres and apply pressure against the underlying tissue or bone) to induce local pain and referred pain. The applied pressure to each point was about 4 kg and lasted for 10 sec.

EMG registration of spontaneous electrical activity (SEA) is the only electrophysiological method to document the existence of an MTP. In the current study, EMG registration of SEA was used to confirm or refute the existence of an MTP following manual identification. During the EMG needle insertion, a thumb palpated the taut band and located the most tender spot on a taut band and applied slightly downward pressure just enough to fix the underlying tissue in place. The total duration of the study for each subject is 1 hour.

### **Intervention Type**

Other

#### Phase

Not Applicable

#### Primary outcome(s)

Local pain and referred pain pattern from MTPs, together with the locations of the MTPs are recorded on an anatomic body map. Taken 10 seconds following manual stimulation of an MTP.

# Key secondary outcome(s))

Existence of the spontanous electrical activity with intramuscular electromyography from the MTPs. Taken after manual stimulation of all MTPs in order not to influence the MTP sensitivity by EMG needle insertion.

#### Completion date

30/12/2010

# **Eligibility**

## Key inclusion criteria

- 1. Patients have FM diagnosis confirmed by a physician according to The American College of Rheumatology (ACR) 1990 criteria for the classification of fibromyalgia
- 2. Control group:
- 2.1. No current spontaneous pain
- 2.2. No major pain experience during the past month prior to experiment
- 2.3. No pain-related diagnoses (e.g., FM, osteoarthritis, rheumatoid arthritis, low back pain, etc.)
- 3. Participants are female and aged between 20 70 years

### Participant type(s)

**Patient** 

# Healthy volunteers allowed

No

#### Age group

Adult

#### Sex

Female

#### Key exclusion criteria

- 1. Pregnancy
- 2. Drug addiction
- 3. Infectious diseases
- 4. Signs of poor cooperation to the study

#### Date of first enrolment

01/01/2009

#### Date of final enrolment

30/12/2010

# Locations

#### Countries of recruitment

Denmark

# Study participating centre Fredrik Bajers Vej 7D-3

Aalborg Denmark DK-9220

# Sponsor information

#### Organisation

The American Fibromyalgia Syndrome Association, Inc. (AFSA) (USA)

#### **ROR**

https://ror.org/00tmwkm13

# Funder(s)

#### Funder type

Charity

#### **Funder Name**

The American Fibromyalgia Syndrome Association, Inc. (AFSA) (USA) (ref: Check Number 1403)

# Alternative Name(s)

The American Fibromyalgia Syndrome Association, Inc., AMERICAN FIBROMYALGIA SYNDROME ASSOCIATION, INC., AFSA

## **Funding Body Type**

Government organisation

# Funding Body Subtype

Associations and societies (private and public)

#### Location

United States of America

# **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	22/03/2011	Yes	No
Participant information sheet	Participant information sheet	11/11/2025 11/1	1/2025 No	Yes