

# Role of myofascial trigger points in fibromyalgia

<b>Submission date</b> 10/02/2011	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 04/03/2011	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 30/03/2011	<b>Condition category</b> Musculoskeletal Diseases	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
		<input type="checkbox"/> 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 spontaneous 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?
<a href="#">Results article</a>	results	22/03/2011		Yes	No