

# Effect of moxibustion on meridian in a warm needling model: A protocol for a prospective observational study

<b>Submission date</b> 30/05/2022	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
<b>Registration date</b> 02/06/2022	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 08/08/2024	<b>Condition category</b> Other	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

Warm needling is a kind of traditional Chinese medicine (TCM) which uses burned moxa to generate warmth and exerts a therapeutic effect on human skin. It could improve deficiency-cold syndrome in TCM theory. Research has found that warm needling has effects on the immune system, endocrine (hormone) system, nervous system, lower urinary tract symptoms, and analgesic (pain relieving) effects. However, the mechanism of warm needling on the meridians has not been identified. In modern studies, the electric characteristic of the meridians has been discovered and the combination of semiconductor and TCM theory could explain the meridian phenomena through physics. However, there was no research exploring the relationship between the thermal effect and electric properties on the meridians. This study aims to explore the thermal effect on the electric characteristics of meridians in a warm needling model and provide a scientific explanation of TCM through the aspect of physics.

### Who can participate?

Healthy volunteers over 20 years old

### What does the study involve?

The participants receive acupuncture and then pain and electrical characteristics are measured. The investigators add the burned moxa to the acupuncture as a method of warm needling. After the moxa burned out, the investigators measure pain and electrical characteristics again.

### What are the possible benefits and risks of participating?

Acupuncture, electric acupuncture, and warm needling are general practices. The chances of adverse side effects are less than 1%, which include minor bleeding or pain at needle insertion sites, nausea, sweating, and dizziness. Electric acupuncture is a complementary treatment that applies electricity to acupuncture and stimulates the meridians in the human body. Acupuncture will be done by qualified doctors. The device for electric acupuncture will apply voltage and current that are safe for the human body.

Where is the study run from?

1. Kaohsiung Chang Gung Memorial Hospital (Taiwan)
2. National Sun Yat-sen University (Taiwan)

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

August 2021 to December 2022

Who is funding the study?

Chang Gung Medical Research Fund (CMRPG8L1481)

Who is the main contact?

Chien Hung Lin

b9505027@cgmh.org.tw

## Contact information

### Type(s)

Principal Investigator

### Contact name

Dr Chien Hung Lin

### Contact details

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## Additional identifiers

### EudraCT/CTIS number

Nil known

### IRAS number

### ClinicalTrials.gov number

NCT05249010

### Secondary identifying numbers

Nil known

## Study information

### Scientific Title

Effect of moxibustion on meridian in a warm needling model: A protocol for a prospective observational study

### Study objectives

Current study hypothesis as of 20/09/2022:

The change in the physical properties of the acupuncture needle could produce different electric characteristics in the meridians and the phenomena could be explained by physics. However, there is no study investigating the relationship between temperature and electric characteristics in the meridians. The purpose of this study is to combine the theory of traditional Chinese medicine (TCM) and physics to explore the thermal effect on the electric characteristics of meridians in a warm needling model.

Previous study hypothesis:

Moxibustion has effects on analgesia and inflammation according to previous research. However, the mechanism of moxibustion and the way in which it affects meridians are not clear. In this study, it is hypothesized that moxibustion could produce an effect by changing electricity on the meridians.

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

Approved 14/01/2022, Human Ethics Committee of Chang Gung Medical Foundation Institutional Review Board (199, Tung Hwa North Road, Taipei, Taiwan, 10507, Republic of China; +886 (0)3 3196200, ext. 3713; ccyi@cgmh.org.tw), ref: 202101924A3

### **Study design**

Prospective observational study

### **Primary study design**

Observational

### **Secondary study design**

Case series

### **Study setting(s)**

Other

### **Study type(s)**

Other

### **Participant information sheet**

See trial outputs table

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

The effect of warm needling on the meridian

### **Interventions**

Current interventions as of 20/09/2022:

All participants receive acupuncture and warm needling. First, participants receive acupuncture and then measure the visual analog scale (VAS) and electric characteristics with the semiconductor analyzer Agilent B1500A. The investigators add the burned moxa onto the acupuncture as a method for warm needling and then measure the VAS and electric characteristics again.

### Previous interventions:

All participants receive acupuncture and moxibustion. First, participants receive acupuncture and then measure the visual analog scale (VAS) and electric characteristics with the semiconductor analyzer Agilent B1500A. The investigators add the burned moxa onto the acupuncture as a method for moxibustion and then measure the VAS and electric characteristics again.

### Intervention Type

Procedure/Surgery

### Primary outcome measure

Current primary outcome measures as of 20/09/2022:

1. Electric current measured using the Agilent B1500A device after the intervention of acupuncture (baseline data) and warm needling (post warm needling data)
2. Voltage measured using the Agilent B1500A device after the intervention of acupuncture (baseline data) and warm needling (post warm needling data)

Previous primary outcome measures:

1. Pain measured using the visual analog scale (VAS) immediately after the intervention of acupuncture (baseline data) and moxibustion (post moxibustion data)
2. Electric current measured using the Agilent B1500A device after the intervention of acupuncture (baseline data) and moxibustion (post moxibustion data)
3. Voltage measured using the Agilent B1500A device after the intervention of acupuncture (baseline data) and moxibustion (post moxibustion data)

### Secondary outcome measures

Added 20/09/2022:

Pain measured using the visual analog scale (VAS) immediately after the intervention of acupuncture (baseline data) and warm needling (post warm needling data)

### Overall study start date

01/08/2021

### Completion date

31/12/2022

## Eligibility

### Key inclusion criteria

1. At least 20 years old
2. Agree to the informed consent

### Participant type(s)

Healthy volunteer

### Age group

Adult

### Sex

Both

**Target number of participants**

30

**Key exclusion criteria**

1. Under 20 years old
2. Pregnant or breastfeeding women
3. Those with an empty stomach before the study
4. A tendency toward bleeding with thrombocytopenia or history of platelets <20000 or a user of an anti-platelet drugs

**Date of first enrolment**

29/03/2022

**Date of final enrolment**

31/12/2022

**Locations****Countries of recruitment**

Taiwan

**Study participating centre****Chang Gung Memorial Hospital**

No. 123, Dapi Rd., Niasng Dist

Kaohsiung

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**Sponsor information****Organisation**

Kaohsiung Chang Gung Memorial Hospital

**Sponsor details**

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**Sponsor type**

Hospital/treatment centre

**Website**

[https://www.cgmh.org.tw/eng2002/intr\\_shk.htm](https://www.cgmh.org.tw/eng2002/intr_shk.htm)

**ROR**

<https://ror.org/00k194y12>

## Funder(s)

**Funder type**

Research organisation

**Funder Name**

Chang Gung Medical Research Fund

## Results and Publications

**Publication and dissemination plan**

Planned publication in a high-impact factor peer-reviewed journal

**Intention to publish date**

30/06/2023

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

The datasets generated during and/or analysed during the current study are/will be available upon request from Chien-Hung Lin (b9505027@cgmh.org.tw).

**IPD sharing plan summary**

Available on request

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Participant information sheet</a>	version 3		31/05/2022	No	Yes
<a href="#">Protocol article</a>		25/11/2022	08/08/2024	Yes	No