

The effects of tuina on patients with obstructive sleep apnea/hypopnea syndrome

Submission date 09/03/2014	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
Registration date 04/04/2014	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
Last Edited 04/04/2014	Condition category Nervous System Diseases	<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

This study aims to find out about the effects of a traditional Chinese therapeutic massage called tuina on patients with a sleep disorder called obstructive sleep apnea/hypopnea syndrome (OSAHS).

Who can participate?

OSAHS patients who did not want to have usual treatment or surgery were recruited.

What does the study involve?

Patients were randomly allocated to receive tuina massage or no treatment. Patients received tuina in various sessions spread over 10 weeks. Quality of life, snoring and sleepiness in daytime were recorded before and 3 months after the treatment.

What are the possible benefits and risks of participating?

Symptoms/signs of OSAHS may get better after treatment. The patients were also informed about the possible side effects of the massage, such as deep venous thrombosis, burns, skin infections, eczema, open wounds, bone fractures, and advanced osteoporosis. In addition, the patients were told about rare serious side effects, such as bone fractures and liver rupture, and minor adverse effects, such as significant pain or discomfort during or shortly after treatment.

Where is the study run from?

We performed this study at the outpatient clinic of acupuncture and sleep center of Chang Gung Memorial Hospital (CGMH) Kaohsiung Medical Center, Taiwan.

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

This study ran between January 2010 and January 2011.

Who is funding the study?

The Chang Gung Memorial Hospital (Taiwan).

Who is the main contact?
Dr Cheng-Nan Lu (lu43364430@gmail.com)
Dr Hsin-Ching Lin

Contact information

Type(s)
Scientific

Contact name
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Additional identifiers

Protocol serial number
N/A

Study information

Scientific Title
The effects of tuina on patients with obstructive sleep apnea/hypopnea syndrome: a one-year single-blind randomised trial

Study objectives
To study the effects of tuina (traditional Chinese therapeutic massage) on patients with obstructive sleep apnea/hypopnea syndrome (OSAHS).

Ethics approval required
Old ethics approval format

Ethics approval(s)
Institutional Review Board of Chang Gung Memorial Hospital for Biomedical Research, IRB#98-1059B

Study design
One-year single-blind randomised trial

Primary study design
Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Obstructive Sleep Apnea/Hypopnea Syndrome

Interventions

Patients were randomised to receive either tuina treatment or no treatment.

The patients received tuina treatment two times per week for 10 weeks. When we used tuina for treatment, the definite course of action was to first use the rolling, pressing and kneading methods on the median line of the neck on the GV16, GV15 and GV14 and both sides of GB20 down to BL11, with back-and-forth manipulation for 3 minutes. GV15, CV23, external Jinjin, Yuye and TH17 on the posterior neck and chin were pressed for 20 seconds. Rolling/kneading and pushing manipulation with one finger were used on the back part of the bladder meridian and governor vessel for 3 minutes. CV12, CV6 and CV3 were pressed for 20 seconds, then the abdomen vibrating method was used for 5 minutes. Treatment time was approximately 15 minutes per session, two times a week for 10 weeks.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

1. Polysomnography (PSG)
2. Neck circumference (NC, cm)
3. Body mass index (BMI, body weight/height²=kg/m²)

The subjective and objective outcome measures were checked pretreatment (baseline) and 3 months after treatment.

Key secondary outcome(s)

1. Medical outcomes study 36-item Short-Form Health Survey (SF-36)
2. Snoring intensity was evaluated by a ten-point visual analog scale
3. Epworth Sleepiness Scale (ESS)

The subjective and objective outcome measures were checked pretreatment (baseline) and 3 months after treatment.

Completion date

01/01/2011

Eligibility**Key inclusion criteria**

1. OSAHS patients who refused conservative therapies or surgery recruited from the outpatient clinic of the sleep center of Chang Gung Memorial Hospital (CGMH) Kaohsiung Medical Center
2. OSAHS confirmed by a full polysomnographic study

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Other

Sex

All

Key exclusion criteria

1. High alcohol intake (> 80 g/day)
2. Morbid obesity
3. Significant lung disease
4. Neurological disease
5. Intellectual deficits
6. Skeletal facial framework problems
7. Central apnea
8. Using of any hypnotic drugs or previous oropharyngeal surgery

Date of first enrolment

01/01/2010

Date of final enrolment

01/01/2011

Locations**Countries of recruitment**

Taiwan

Study participating centre

Kaohsiung Chang Gung Memorial Hospital , 123, Ta-Pei Rd., Niao-Sung District, Kaohsiung City, 833, Taiwan

Kaohsiung

Taiwan

83311

Sponsor information**Organisation**

Kaohsiung Chang Gung Memorial Hospital (Taiwan)

ROR

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

Funder(s)

Funder type

Hospital/treatment centre

Funder Name

Kaohsiung Chang Gung Memorial Hospital (Taiwan) (grant CMRPG 890341)

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?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes