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# Title: Warm Moxibustion and Scraping as a Traditional Chinese Medicine Therapy for Cervical Spondylosis Treatment

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# **Author Questionnaire**

 Microscopy: Does your protocol require the use of a dissecting or stereomicroscope for performing a complex dissection, microinjection technique, or something similar?
No.

**2. Software:** Does the part of your protocol being filmed include step-by-step descriptions of software usage?

No.

3. Filming location: Will the filming need to take place in multiple locations?

No.

#### **Current Protocol Length**

Number of Steps: 14 Number of Shots: 31



# Introduction

Videographer: Obtain headshots for all authors available at the filming location.

- 1.1. <u>Songxing Zhang:</u> This study employed warm moxibustion and scraping to treat cervical spondylosis, aiming to develop a simple and effective non-pharmaceutical therapeutic approach.
  - 1.1.1. INTERVIEW: Named talent says the statement above in an interview-style shot, looking slightly off-camera. *Suggested B-roll: 2.2.5*

What advantage does your protocol offer compared to other techniques?

- 1.2. <u>Xuan Zhang:</u> This protocol combines moxibustion and scraping therapy, effectively integrating heat, mechanical stimulation, and neck movement for cervical spondylosis treatment, with demonstrated good efficacy, safety, and patient acceptance.
  - 1.2.1. INTERVIEW: Named talent says the statement above in an interview-style shot, looking slightly off-camera. *Suggested B-roll: 2.4.3*

What research questions will your laboratory focus on in the future?

- 1.3. <u>Songxing Zhang:</u> In subsequent investigations, we will integrate advanced imaging modalities and multidimensional biomarker profiling to systematically evaluate therapeutic outcomes and elucidate the mechanistic underpinnings of warm moxibustion and scraping.
  - 1.3.1. INTERVIEW: Named talent says the statement above in an interview-style shot, looking slightly off-camera. *Suggested B-roll: 2.13.1*

Videographer: Obtain headshots for all authors available at the filming location.



#### **Ethics Title Card**

This research has been approved by the Ethics Committee at the Liaoning University of Traditional Chinese Medicine Second Affiliated Hospital



# **Protocol**

#### 2. Warm Moxibustion and Scraping Procedure

**Demonstrator:** Wenjing Zhu

- 2.1. To begin the procedure, ask the patient to sit upright and fully expose the neck, shoulders, and both hands [1].
  - 2.1.1. WIDE: Talent instructing a patient to sit and adjust clothing to reveal the neck, shoulders, and hands.
- 2.2. Using scissors, cut the thunder-fire moxa stick into four equal parts, approximately 2.5 centimeters each [1]. Insert one part into the screw in the WMAS cup [2-TXT]. Evenly ignite the bottom surface of the moxa stick [3], cover it with a fireproof net [4], and place it in the treatment tray for spare use [5].
  - 2.2.1. Talent cutting the moxa stick into four equal sections on a clean surface.
  - 2.2.2. Talent inserting a moxa section into the screw socket of the WMAS cup. **TXT: WMAS:** Warm moxibustion and scraping
  - 2.2.3. Talent lighting the moxa stick.
  - 2.2.4. Talent covering the stick with the net.
  - 2.2.5. Talent placing the WMAS cup in a tray.
- 2.3. Now, using tweezers, pick up gauze and clean the treatment area [1]. Then, apply scraping oil evenly to the area [2].
  - 2.3.1. Talent using tweezers to clean the patient's neck and upper back with gauze.
  - 2.3.2. Talent applying scraping oil smoothly across the cleaned area.
- 2.4. Test the temperature by hand [1]. Next, place the rim of the WMAS cup close to the skin [2], then tilt the edge until the angle between the mouth of the cup and the skin reaches approximately 10 to 15 degrees [3].
  - 2.4.1. Talent checking heat level by hovering hand over the cup.
  - 2.4.2. Talent positioning the WMAS cup onto the patient's back.
  - 2.4.3. Talent adjusting the angle of the cup to achieve the correct tilt. **NOTE:** Combined shots 2.4.2 and 2.4.3 into one shot.



- 2.5. Scrape 20 times with light force [1], then scrape 20 times with gradually increasing strength until the patient can tolerate it [2]. Then, scrape 20 times with gradually reducing strength [3], with even force each time at a consistent rate of 30 times per minute [4].
  - 2.5.1. Talent performing 20 times scraping with light strength.
  - 2.5.2. Talent performing 20 times scraping with increasing strength.
  - 2.5.3. Talent performing 20 times scraping with decreasing strength.
  - 2.5.4. Close-up of hand maintaining rhythm and force during scraping. NOTE: Not filmed
- 2.6. Ensure that the treatment includes 5 meridians and 9 treatment lines [1].
  - 2.6.1. Shot of 5 meridians and 9 treatment lines.
- 2.7. To treat the Governor Vessel, bend the patient's head slightly forward to expose the back of the neck [1]. Use one hand to support the patient's forehead [2] and hold the WMAS cup with the other [3]. Scrape along the treatment line from GV16 to GV12 [4].
  - 2.7.1. Talent gently lowering the patient's head to reveal the nape.
  - 2.7.2. Talent holding the forehead of the patient with one hand. **NOTE**: Combined shots 2.7.2, 2.7.3 and 2.7.4 into one shot
  - 2.7.3. Talent holding the cup with the other hand.
  - 2.7.4. Talent scraping from GV16 to GV12 along the treatment line.
- 2.8. For the Bladder Meridian of Foot-Taiyang, scrape along two lines, one on each side, from BL10 to BL13 [1].
  - 2.8.1. Talent scraping symmetrically on both sides of the spine from BL10 to BL13.
- 2.9. Then, for the Gallbladder Meridian of Foot-Shaoyang, turn the patient's head slightly to expose the area [1]. Support the head on the same side [2], and scrape from GB20 to GB21 [3].
  - 2.9.1. Talent rotating the patient's head to the left.
  - 2.9.2. Talent placing a hand on the left side of head. **NOTE**: Combined 2.9.2 and 2.9.3
  - 2.9.3. Talent scraping from GB20 to GB21.
- 2.10. To treat the Triple Energizer Meridian of Hand Shaoyang, scrape along the treatment



line from TE3 to TE4 while the patient performs neck rotation and lateral flexion [1].

- 2.10.1. Talent scraping on the patient's hand while the patient slowly rotates and bends the neck side to side.
- 2.11. To treat the Triple Energizer Meridian of Hand-Shaoyang, ask the patient to turn the head to the left slowly until the maximum angle and hold for 5 seconds, then turn to the right and hold for 5 seconds [1-TXT].
  - 2.11.1. Patient turning head left and holding the position, turn to the right and holding the position. TXT: Scrape along the treatment line from TE3 to TE4 five times NOTE: 2.11.1 and 2.12.1 are combined and may have been slated as 2.10.1
- 2.12. Instruct the patient to slowly bend the neck to the left side and hold for 5 seconds, then bend to the right and hold for 5 seconds [1-TXT].
  - 2.12.1. Patient bending neck to the left and right, holding the stretch. **TXT: Repeat this** step five times
- **2.13.** To treat the Small Intestine Meridian of Hand-Taiyang, scrape from SI3 to SI4 on both hands while the patient performs neck flexion and extension [1-TXT].
  - 2.13.1. Talent scraping the patient's hand while they bending the neck forward and backward . **TXT: Repeat this step five times**
- 2.14. Using gauze, wipe away any excess scraping oil from the treated area [1]. Then, ask the patient to rest for 10 minutes to avoid any adverse reactions [2].
  - 2.14.1. Talent wiping down the patient's neck, upper back, and hands.
  - 2.14.2. Patient seated in a relaxed posture, resting post-treatment.



# Results

#### 3. Results

- **3.1.** Treatments were administered on days 1, 5, 9, and 13. Patients were followed up for 4 weeks after the final treatment [1].
  - 3.1.1. LAB MEDIA: Figure 4
- 3.2. Before treatment on day 1 and after the 5<sup>th</sup> day's treatment, there was no significant difference in the NDI, VAS (*V-A-S*), or NPQ scores between the two groups [1].
  - 3.2.1. LAB MEDIA: Table 3 Video editor: Highlight the rows "before treatment" and "After day 5 treatment" for NDI, VAS and NPQ scores
- 3.3. After the 13<sup>th</sup> day's treatment and at follow-up, the treatment group had significantly lower NDI, VAS, and NPQ scores than the control group, indicating that the treatment group had superior efficacy and better long-term outcomes than the control group [1].
  - 3.3.1. LAB MEDIA: Table 3 Video editor: Highlight the rows "After day 13 treatment" for NDI, VAS and NPQ scores

Here is a pronunciation guide for the technical terms identified in your script, following American English standards:

#### 1. Moxibustion

- Pronunciation link: <a href="https://www.howtopronounce.com/moxibustion">https://www.howtopronounce.com/moxibustion</a>
- IPA: / mpk.si bas.tfən/
- Phonetic Spelling: mok-sih-bus-chun(howtopronounce.com, hantrainerpro.com)

# 2. Scraping



- Pronunciation link: <a href="https://dictionary.cambridge.org/us/pronunciation/english/scraping">https://dictionary.cambridge.org/us/pronunciation/english/scraping</a>
- **IPA**: /ˈskreɪ.pɪŋ/
- **Phonetic Spelling:** skray-ping(dictionary.cambridge.org, youtube.com, wordpanda.net)

## 3. Governor Vessel (GV)

- Pronunciation link: No confirmed link found
- IPA: /ˈgʌv.ər.nə ˈvɛs.əl/
- **Phonetic Spelling**: guh-vur-nur ves-uhl(<u>youglish.com</u>)

### 4. Bladder Meridian (BL)

- Pronunciation link: No confirmed link found
- IPA: /ˈblæd.ər məˈrɪd.i.ən/
- **Phonetic Spelling**: blad-er muh-rid-ee-uhn(tcmwiki.com)

# 5. Gallbladder Meridian (GB)

- Pronunciation link: No confirmed link found
- **IPA**: /ˈqɔːl blæd.ər məˈrɪd.i.ən/
- **Phonetic Spelling**: gawl-blad-er muh-rid-ee-uhn(natural-health-zone.com)

## 6. Triple Energizer Meridian (TE)

- **Pronunciation link**: No confirmed link found
- **IPA**: /ˈtrɪp.əl ˈɛn.ərˌdʒaɪ.zər məˈrɪd.i.ən/
- **Phonetic Spelling**: trip-uhl en-er-jy-zer muh-rid-ee-uhn(<u>dictionary.cambridge.org</u>)

# 7. Small Intestine Meridian (SI)

- Pronunciation link: No confirmed link found
- **IPA**: /smɔːl ɪnˈtɛs.tɪn məˈrɪd.i.ən/
- Phonetic Spelling: small in-tes-tin muh-rid-ee-uhn



# 8. NDI (Neck Disability Index)

• Pronunciation link: No confirmed link found

• IPA: /ɛn.di:.aɪ/

• Phonetic Spelling: en-dee-eye

# 9. VAS (Visual Analog Scale)

• Pronunciation link: No confirmed link found

• IPA: /vi:.ei.es/

• Phonetic Spelling: vee-ay-ess(wordpanda.net)

# 10. NPQ (Neck Pain Questionnaire)

• Pronunciation link: No confirmed link found

• **IPA**: /ɛn.piː.kjuː/

• Phonetic Spelling: en-pee-kyoo(<u>collinsdictionary.com</u>)