administration. Although it is rare for CT to be associated with adverse effects, there are reports of serious adverse events, Lee et al [9] has reported such cases implicated with administration of CT, but these were mostly attributed to the administration of CT by non-specialized practitioners. As reports of severe adverse effects relating to CT exist, albeit rare, increasing safety in CT should prove beneficial to both patients and practitioners (Korean medicine doctors). Based on the results of this survey, it can be concluded that use of X-rays in CT administration not only increases patient comprehension and satisfaction, but also may improve safety. While this study focused on the use of X-rays, future studies may consider other radiological and diagnostic imaging devices to further identify benefits in clinical practice.

Conflicts of Interests

The authors declare that there is no conflict of interest regarding the publication of this manuscript.

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Appendix 1.

Survey on X-ray use for administration of Chuna manual therapy

Hello.

This survey is part of a basic survey study conducted to the aim of developing methodology towards building an evidence base for clinical effectiveness of Korean medicine treatment modalities through use of quantitative diagnostic medical devices in clinical settings. Chuna manual therapy is a Korean medicine treatment method that adjusts not only skeletal alignment, but also joints and ligaments, and promotes circulation of the meridians and Qi and Blood, and as such is used extensively for musculoskeletal disorders. In addition, X-rays are the most widely used and cost-effective diagnostic tool for imaging the skeletal structure and allows close examination of the skeletal alignment and physical landmarks.

Jaseng Medical Foundation is in the process of conducting a study for protocol development of an observational study that will collect clinical treatment data to strengthen treatment effects and enhance patient safety in treatment of musculoskeletal disorders using Chuna manual therapy as part of an academic research study project service task funded by a grant from the Korea Institute of Oriental Medicine.

We appreciate the time and effort taken to participate in this survey. We ask that you contribute to this survey to heighten the utility and value of this study through incorporation of your opinions and experience in use of X-rays in Chuna treatment. Responses will remain strictly confidential in accordance with Article 33 (Protection of Secrets) and 34 (Responsibility of Statistics Workers) of the Statistics Act, and will be used in statistical analysis for study design purposes only. Thank you for your cooperation.

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Jaseng Spine and Joint Research Institute, Jaseng Medical Foundation

References

3. How much do the following factors affect selection of Chuna treatment intensity and specific techniques?

1) Sex and age

- Low association  Neutral  High association

2) Severity of clinical symptoms

- Low association  Neutral  High association

3) Palpation and physical examination

- Low association  Neutral  High association

4) Radiologic diagnosis (X-ray) results for degenerative changes of the spine (spurs and narrowing of intervertebral disc space)

- Low association  Neutral  High association

5) Regarding radiologic diagnosis (X-ray) results for degree of spinal malposition

- Low association  Neutral  High association

4. For which spine or pelvic malposition diagnoses is radiologic diagnosis (X-ray) superior to palpation and physical examination clinically? (multiple answers allowed)

Lumbar spine dysfunctions:
- Flexion dysfunction,
- Extension dysfunction,
- Side bending dysfunction,
- Rotation dysfunction,
- Spondylolisthesis,
- Retrolisthesis,
- Lateral displacement,
- Combined dysfunction

Iliac dysfunctions:
- Inflair,
- Outflair,
- Anterior rotation dysfunction,
- Posterior rotation dysfunction,
- Upslip,
- Downsip

Sacral dysfunctions:
- Flexion dysfunction,
- Extension dysfunction,
- Side bending dysfunction,
- Rotation dysfunction

5. How many patients do you treat with Chuna manual therapy on average per day?

- <5 patients
- 5-10 patients
- 11-20 patients
- 21-30 patients
- 31-40 patients
- ≥41 patients

6. What is the average percentage (%) of patients that you check for test results for treatment means through consultation for radiologic diagnosis (X-ray) or patient visits with radiologic diagnosis results out of total Chuna patients?

- ≤10%
- 11-20%
- 21-30%
- 31-100%

7. Have you participated in or completed Chuna education course(s) at the Chuna Medicine Academy (provided by the Korean Society of Chuna Manual Medicine for Spine & Nerves)?

- Yes
- No

- Use of radiologic diagnosis (X-ray) in administration of Chuna manual therapy

1. Do you regard use of radiologic diagnosis (X-ray) to be beneficial in administration of Chuna manual therapy?

- Low importance/help  Neutral  High importance/help

2. For what aspect do you regard use of radiologic diagnosis (X-ray) to be beneficial in administration of Chuna manual therapy?

1) Saving time to diagnosis of malposition/dysfunction for Chuna treatment

- Low importance/help  Neutral  High importance/help

2) Increased accuracy of Chuna treatment

- Low importance/help  Neutral  High importance/help

3) Increased patient comprehension and satisfaction of Chuna treatment

- Low importance/help  Neutral  High importance/help

4) Increased Chuna treatment effect

- Low importance/help  Neutral  High importance/help

5) Increased safety of Chuna treatment

- Low importance/help  Neutral  High importance/help

6. Please give us your opinion freely on additional aspects where use of radiologic diagnosis is beneficial in administration of Chuna manual therapy.

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