

Cincinnati, 03-01-2013

March 01, 2013

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 1804-review.doc).

Title: Ponseti Method Compared with Soft-Tissue Release for the Management of Clubfoot: A Meta-Analysis Study

Authors: Marios G. Lykissas, MD, PhD, Alvin H. Crawford, MD, Emily A. Eismann, MS, Junichi Tamai, MD

Name of Journal: *World Journal of Orthopaedics*

ESPS Manuscript NO: 1804

The manuscript has been improved according to the suggestions of reviewers:

1 Format has been updated

2 Revision has been made according to the suggestions of the reviewer

Reviewer #1

1. Please insert the word “ Study” after A Meta-Analysis in the title.

Response: The title was changed to: Ponseti Method Compared with Soft-Tissue Release for the Management of Clubfoot: A Meta-Analysis Study

2. In the background, expand and clearly define Ponseti method and highlight the basic outcomes of previous trials.

Response: The following sentence was added to define the Ponseti method: “.... of the Ponseti method, consisting of manipulations and serial casting followed by heel cord lengthening, to achieve and maintain a flexible, plantigrade, and painless foot...”

See page 3, para 1.

The following sentences were added to highlight the basic outcomes of previous trials comparing Ponseti method versus open surgery: “When Zwick et al.^[8] prospectively compared foot function in 12 feet treated with the Ponseti method and 16 feet who underwent initial casting and posteromedial release, higher functional score was recorded in the Ponseti group after a minimum follow-up of 3 years. In a retrospective study, 40 feet treated with the Ponseti method were compared with 46 feet managed with below-the-knee casts followed by open surgery^[7]. The authors reported lower incidence of revision surgery due to deformity recurrence in patients treated with the Ponseti method after a minimum follow-up of 2 years. In another retrospective study, Ippolito et al.^[1] evaluated 47 clubfeet treated with posteromedial release and 49 clubfeet which were managed with the Ponseti’s manipulation technique, cast immobilization and open heel-cord lengthening. The later group showed better long-term results.” See page 3, para 2.

3. I would highly encourage the authors to include a figure and list all the specific angles of the foot. This will allow the reader to determine the exact anatomical location of each of the angles that were mentioned in page 4.

Response: Figure 2 was added.

4. The way that the inclusion criteria were listed is unclear, why publication year and authors' names are within the inclusion criteria.

Response: Publication year/month was in the inclusion criteria in order to identify the month the meta-analysis was conducted and to avoid any possible problems with future articles not included. The authors' names are not in the inclusion criteria.

5. Please define what do you mean by the Q test, have used the Q test to calculate the effect size.

Response: Variability between treatment types was assessed with Cochran's Q statistic, which measures the presence or absence of heterogeneity between studies based on a chi-square distribution. It is calculated as the weighted sum of squared differences between individual study effects and pooled effects across studies. The I^2 index was also calculated as a measure of the extent of heterogeneity between studies. Larger Q and I^2 values indicate greater variability. See page 6, para 1, lines 8-12.

6. Discussion is acceptable but I would recommend to shortening the paragraph in P12 and stayed focus on the main outcomes of the study.

Response: Paragraph in P12 was significantly shortened after deleting the first 4 sentences.

7. Please highlight limitations of the study and future recommendations, as well as insert the term “Conclusions” before the last paragraph.

Response: The following paragraph was added at the end of the discussion section to address the limitations of our study: “The present meta-analysis addressed clubfeet treated with either open surgery or the Ponseti method as a group because of the absence of a common pre-operative evaluation of the deformity in the studies reviewed. Reported scores are shown as an average of all feet treated rather than relative to the degree of severity. Although in some of the studies analyzed a pre-operative evaluation was available, the system used deferred, and therefore a comparison between studies in terms of severity of the deformity was not possible. Another limitation of our study is the likelihood of selection bias associated with retrospective cohort studies, the predominant study design analyzed. Additionally, the evidence to support our findings is based on a limited number of studies evaluating the results of Ponseti method compared with studies evaluating open surgery. However, the number of clubfeet treated with the Ponseti method was large enough to allow comparison with surgically treated clubfeet (224 versus 387 clubfeet, respectively).”

Future recommendations were added at the conclusion section. Our treatment recommendations are presented in figure 4.

The term “Conclusions” was added before the last paragraph.

8. The quality of figures 1 and 3 needs to be improved.

Response: The quality of figures 1 and 3 was improved.

Reviewer #2

Comment 1: Well-written paper but some minor revisions should be done: Tables are a little bit confusing and should be simplified. Table legends should be more descriptive.

Response: Tables I-V were simplified by removing columns and legends became more descriptive.

Comment 2: Figure 4 should be removed.

Response: Figure 4 was deleted.

Comment 3: Discussion part should be shortened and be more clear. Some unnecessary common knowledge especially on page 11 first paragraph should be removed.

Response: Discussion was shortened, including 1st paragraph of page 11.

Reviewer #3

Comment 1: The paper needs to accept that the results are by nature going to be of low scientific value given the grade of studies used and the relatively loose entry criteria. This must be stated clearly in the discussion

Response: The following sentence was added: "It should also be noted that this study has the disadvantages adherent to low level of evidence studies analyzed and the relatively loose entry criteria." See page 10, para 1, lines 6 and 7.

3 References and typesetting were corrected

Thank you again for publishing our manuscript in the *World Journal of Orthopaedics*.

Sincerely yours,

A handwritten signature in blue ink, appearing to be 'M. Lykissas', on a light-colored background.

Marios G. Lykissas, MD, PhD

Division of Pediatric Orthopaedic Surgery

Cincinnati Children's Hospital Medical Center

3333 Burnet Avenue, MLC 217

Cincinnati, OH, PC 45229, U.S.A.