

## Peer Review File

Article information: <http://dx.doi.org/10.21037/atm-21-65>

### Reviewer A

**Comment 1:** Some of your wording is too verbose. For example you could change Lines 121-124 to "As most children start walking between 12 and 18 months of age, we suggest that 'neglected clubfoot' be classified as any clubfoot that did not receive treatment before the age of 1 year." Edit for this consideration throughout the paper. Especially the following lines: 127-131, 147-148, 266-269.

**Reply 1:** Thank you for your suggestion. We have edited the mentioned lines:

- Lines 127-131: *'As most children start walking between 12 and 18 months of age, it is reasonable to assume that it would be ideal for all children to receive adequate clubfoot treatment before completing 1 year of age. Therefore, we define a 'neglected clubfoot' as any clubfoot which has not received any treatment before the age of 1 year.'*
- Lines 147-148: *'We present a narrative overview of the literature focused on serial casting as a method of treatment for neglected clubfeet.'*
- Lines 266-269: *'However, there are no consensual recommendations or bracing protocol for older children treated for neglected clubfeet. An abduction orthosis, in which 2 shoes are attached to a bar, in 50° external rotation and shoulders 'distance between them, is the most frequent type of brace used after the end of correction. There are wide variations in the recommendations for its use and the duration of the protocols ranges between 3 and 12 months after tenotomy.'*

**Comment 2:** Your purpose statement is abrupt and without lead in. Consider expanding this paragraph and explain why you are doing the review/the significance of this review.

**Reply 2:** Thank you for your suggestion. We have edited the mentioned lines paragraph:

- *'Neglected clubfoot is still a significant public health problem in many countries and brings many challenges to healthcare professionals who come into the care of these patients. This narrative review aims to describe what is known about serial casting in the treatment of neglected clubfoot and evaluate evaluate its worldwide role and effectiveness. We present the following article in accordance with the NARRATIVE REVIEW reporting checklist.'*

**Comment 3:** Line's 159-161 - Consider describing the foot as typically developing and not "normal".

**Reply 3:** Thank you for your suggestion. However, we would prefer to maintain the statement 'When treating patients with neglected clubfeet, the goals remain similar as for newborns: to achieve a normal looking, plantigrade, flexible and pain-free foot, not requiring shoe modifications and with the least chance to

relapse.' We believe that it is easier for the readers to understand the concept of 'normal looking'than 'typically developing'.

**Comment 4:** Line 177 - usually repeated 2x

**Reply 4:** Thank you for your suggestion. We have corrected this.

**Comment 5:** Line 208 - Typo "at the onset OF treatment"

**Reply 5:** Apologies, but we could not find this typo in line 208 or other lines.

**Comment 6:** Lines 213-215 - Change of font type and size, did this happen in the conversion process or in the original document?

**Reply 6:** We are not sure why did this happen, but formatted the document again.

**Comment 7:** You have great information in your review, consider organizing or breaking your narrative up into sections with headings and not just one large narrative.

**Reply 7:** We added sub-headings in the Discussion Section:

- *What Are the Goals of treatment of Neglected Clubfeet?*
- *Success of Ponseti Treatment Protocols for Neglected Clubfeet*
- *Specificities when applying Ponseti Method after walking age*
- *The Relapse Problem*

**Comment 8:** It feels like you are throwing data at us from other studies without any lead in or purpose and feels like an information dump that could have bullet points and not a narrative review.

**Reply 8:** Your suggestions allowed us to improve this review and we hope that you may find it more adequate.

**Reviewer B:** This manuscript entitled "Neglected clubfoot treated by serial casting: a narrative review on how possibility takes over disability" summarized a literature review of 13 published studies on the use of Ponseti's method to treat clubfeet after walking age.

**Comment 1:** The abstract was good, with the exception that the "18% of relapses" on line 92 was not reflective of the summary in the article. For example: Lines 210-213: 15/24 patients had equinus recurrence (62%). Eight of these (33%) required posterior release. In another article (line216-218), 6/25 feet (24%) relapsed and required full posteromedial releases.

The authors need to delete the "18% relapse" summary as it is NOT reflective of the information in the article.

**Reply 1:** Thank you for your suggestion and important clarification. We have changed the phrase to "18-62,5% relapse".

**Comment 2:** The Introduction section was good.

**Comment 3:** There was no Results section. There should be, even if it only includes Table 1, the data from the 13 published articles.

**Reply 3:** Thank you for your suggestion. We have followed the 'Narrative Review Checklist' provided by the journal, which does not include a Results Section. However, we agree that it is important to have a Results Section and added this, so that it can be considered by the Editors.

**Comment 4:** The Discussion section was challenging to read through as it had no flow. It jumped from one article to the next without really having any organized transitions. If the authors wanted to convey an organized message to the reader, I was not able to follow along. This section should be much better organized - the authors should at least create some subcategories. For example, Lines 235-257 could be under the subcategory of "Technique".

**Reply 4:** Thank you for your suggestion. In order to improve this section, we have added subheadings in the Discussion Section:

- *What Are the Goals of treatment of Neglected Clubfeet?*
- *Success of Ponseti Treatment Protocols for Neglected Clubfeet*
- *Specificities when applying Ponseti Method after walking age*
- *The Relapse Problem*

Specific topics to address:

**Comment 5:** Line 148: need to be more specific than stating "we included all types of studies...."

**Reply 5:** Thank you for your suggestion. We have clarified that *'We included all types of research studies, both experimental and observational, published in English, French, Portuguese and Spanish.'*

**Comment 6:** Line 151: need to correct "January 20211"

**Reply 6:** Thank you for your suggestion. This was corrected.

**Comment 7:** Line 154: What is meant by "hand searches"

**Reply 7:** Hand searching is used in narrative reviews and refers to the process of looking at the entire table of contents of journal issues or conference proceedings for a certain number of years. It is a manual method of scanning selected journals or documents, page-for-page for relevant articles in case they were missed during indexing.

**Comment 8:** Results section: put in Table 1.

**Reply 8:** Thank you for your suggestion. This was done.

**Comment 9:** Line 177: delete one of the two “usually”

**Reply 9:** Thank you for your suggestion. This was done.

**Comment 10:** Line 178-180: correct the grammar of the sentence.

**Reply 10:** Thank you for your suggestion. This was corrected to: ‘It is important to keep in mind that the goals of patients should be taken into consideration. Patients with neglected untreated clubfoot, may have no complains of pain or functional impairment.’

**Comment 11:** Line 185 and Line 187: References should be listed 14-18, and 19-30. Not individually.

**Reply 11:** Thank you for your suggestion. This was done.

**Comment 12:** Line 198: insert “A meta-analysis showed that the rate of initial success for....”

**Reply 12:** Thank you for your suggestion. This was done.

**Comment 13:** Line 208: Correct the sentence beginning: “The age of the patients.....”

**Reply 13:** Thank you for your suggestion. This was corrected.

**Comment 14:** Lines 213-215: this is a repeat of the immediate preceding sentence.

**Reply 14:** Thank you for your suggestion. This was corrected.

**Comment 15:** Lines 238-239: I don’t know what the authors mean by “tenar eminence”

**Reply 15:** Thank you for your suggestion. This was corrected to ‘the thenar eminence of the hand’.

**Comment 16:** Line 240: “Manipulation” is mis-spelled.

**Reply 16:** Thank you for your suggestion. This was corrected.

**Comment 17:** Line 255-257: I do not understand this sentence. Rewrite it.

**Reply 17:** Thank you for your suggestion. This was done. Sentence was modified to “They believe that this strategy grants a better final ankle dorsiflexion, which might be a relevant achievement when patients live in environments in which squatting is of cultural and social importance.’

**Comment 18:** Line 299: insert “with approximately 89% of initial treatment success in achieving...”

**Reply 18:** Thank you for your suggestion. This was done.

**Comment 19:** Lines 304-306: delete, as this is a repeat of the previous sentence.

**Reply 19:** Thank you for your suggestion. This was done.

**Comment 20:** Line 328: fix “congenital”

**Reply 20:** Thank you for your suggestion. This was done.

**Reviewer C:** Dear Authors, I appreciate the opportunity and the invitation to review a paper at ATM. The study is a narrative review of the Ponseti method for the treatment of neglected clubfoot. The text is very good. I suggest some revisions and add missing information.

Below the specific comments for the review.

#### Abstract

**Comment 1:** The abstract is very good. Congratulations.

#### Introduction

**Comment 2:** Add information and specific data on the complications of different types of surgery. In many places, surgeons, when treating a child with neglected clubfoot, are already seeking surgical treatment, which is no longer acceptable, especially due to psychological and physical complications.

**Reply 2:** Thank you for your suggestion. We have added the sentence ‘Neglected clubfoot is still a significant public health problem in many countries and brings many challenges to healthcare professionals who come into the care of these patients. While a number of surgical techniques (soft tissue releases, arthrodesis) have been used to correct clubfoot in different ages, various complications were observed, namely soft tissues contractures, neurovascular complications, infections, and limb length discrepancy. Currently, the non-operative management (manipulation, serial casting, and braces) of clubfoot is considered as the best choice and it is widely accepted.’

#### Methods

**Comment 3:** The line of research is very good, but I believe it would be interesting to add two very important bases: EMBASE (studies from Europe) and LILACS (studies from Latin America)

**Reply 3:** Thank you for your suggestion. This was done.

**Comment 4:** A study that has just been published, led by Brazilian authors, was not included in this review. This is a multicenter study published in 2020 in The Iowa Orthopedic Journal (Vol. 40, Issue 2). The title is: “Ponseti Method After Walking Age - A Multi-Centric Study of 429 Feet: Results, Possible Treatment Modifications and Outcomes According to Age Groups”

**Reply 4:** Thank you for your suggestion. We have added this very interesting and important study.

## Review

**Comment 5:** The authors need to discuss the transference or not of the anterior tibial as a routine after the Ponseti method. Some researchers recommend doing it always and others if diagnosed with dynamic supination.

**Reply 5:** Thank you for the suggestion. We have detailed this in section ‘The Relapse Problem’.

**Comment 6:** Discuss the results found in this study: “Ponseti Method After Walking Age - A Multi-Centric Study of 429 Feet: Results, Possible Treatment Modifications and Outcomes According to Age Groups”

**Reply 6:** Thank you for your suggestion. Data from this study was added in Table 1 and Discussion Section: ‘In a multicentre retrospective study, Haje *et al.* reported on the results obtained with Ponseti Method when treating 429 clubfeet in 303 patients with no previous treatment and older than one-year, from 15 centers in 7 countries. The median age at beginning of treatment was three years, and the median follow-up 1.3 years. After a mean of 6.8 casts, 87% (373 of 429) of neglected clubfeet were corrected. Residual equinus was treated with percutaneous Achilles tenotomy in 83% of clubfeet. A bilateral foot abduction brace was prescribed and used in 70% of children. Relapses occurred in 31% (32 of 103) of clubfeet and were associated with age less than 4 years at treatment onset, and bracing noncompliance.’

**Comment 7:** Another topic that remains to be addressed is the reason for the low adherence of the orthosis by the patients. In general, there is a public health problem in developing countries, such as lack of adequate public transport for consultations, lack of knowledge of the importance of the orthosis and other aspects that should be addressed in this review.

**Reply 7:** Thank you for your suggestion. This was done. We have discussed this in subsection ‘*The Relapse Problem*’.

**Comment 8:** Another very good article that would be interesting to detail it throughout the review was written by Ortiz-Montoya et al, “Untreated congenital clubfoot in school, adolescent and adult patients. Current concepts review ”in Revista Colombiana de Ortopedia y Traumatología.

**Reply 8:** Thank you for your suggestion. We have added this reference and detailed it through our review, particularly in sections ‘*Specificities when applying Ponseti Method after walking age*’ and ‘*The Relapse Problem*’.

**Comment 9:** Line 200: need to write the meaning of CI before abbreviating

**Reply 9:** Thank you for your suggestion. This was done.

**Comment 10:** Line 240: typo (manipoulation)

**Reply 10:** Thank you for your suggestion. This was corrected.

Conclusion

**Comment 11:** The conclusion is long. I suggest making it more concise and smaller. Avoid writing references at the conclusion.

**Reply 11:** Thank you for the suggestion. We have modified the conclusion: 'The upper age limit for the use of Ponseti Method in clubfoot treatment is yet to be established. The results of the Ponseti method for the initial treatment of clubfoot in children after the walking age are encouraging, with more than 85% of initial success in achieving aesthetically acceptable, functional, and pain-free plantigrade feet. If Ponseti casting is not successful, any further interventions should be carefully selected and planned, in order to maintain the length of the foot and avoid intracapsular scarring or bony fusions.'