

Peer Review File

Article information: <http://dx.doi.org/10.21037/atm-20-7774>

Reviewer A

Comment 1: Interesting article describing the results of CF clinic @ LA-OIC.

This review article clearly describes how the patients were managed during the past 15 years.

Authors clearly describes pros and cons of PONSSETI's technique, and how to counsel families accordingly.

Number of included patients is sufficient to draw sound conclusion.

Reply 1: We thank the Reviewer for these comments.

Reviewer B

Comment 1: It's very interesting to read this compilation of publications, yes, your group really produces a lot of literature, and it is so important to have all these references put together, they can help "to translate" medicine, as it is suppose to happen in this journal.

Reply 1: We thank the Reviewer for this comment.

Comment 2: Some thoughts: soft cast is worse with small babies because it does not mold well.

Reply 2: In our experience, with some practice, the two cast materials have similar mouldability. We have found both plaster and soft cast materials are bit more challenging when used in very small babies. Furthermore, as stated in the manuscript: "The effectiveness of using semirigid fiberglass cast material has been documented by other authors." We provided references for thWe also described our rationale for using soft cast material over plaster.

Comment 3: Considering the beginning of treatment: maybe you can also comment on the "mother side" to be able to cope with the cast period, it is good to have all things already going well as the weight of the baby, mother hormones normalization, normal bilirrubins, babies out of hospital, - everything goes much better after that..

Reply 3: We agree the Reviewer's concern. It has been our experience that parents of infants with clubfoot have often been encouraged to seek care as soon as possible after birth. However, our findings indicate that a delay of a few weeks does not appreciably alter outcome. Accordingly, if the mother of a newborn with a clubfoot is having post-partum difficulties, she should not feel pressure to initiate treatment urgently.

We have added the following to the revised manuscript:

Specifically, if the mother of a newborn with a clubfoot is having post-partum difficulties, she should not feel pressure to urgently initiate treatment."

Comment 4: And also, online 194: why to lengthen the Achilles and not tenotomize???

Percutaneous tenotomy is safe and heals well in any age if considering this pathology.

Reply 4: Thank you for this comment. This sentence pertains to patients who are undergoing tendon transfer. Generally, they are 3 years of age or older. At the time we were managing these patients, we were following Ponseti's guidelines. In his book in the section titled "Relapses" he wrote that cast treatment is "followed by lengthening the tendo Achilles when dorsiflexion of the ankle is less than 15 degrees". Satisfactory healing of a tenotomy in older children was not well-established at the time we were managing our patients. Many clinicians now will perform tenotomy rather than by open or semi-open (Hoke technique) lengthening of the tendon. Since this sentence pertains to our methods during data collection, it is more accurate to leave it as written.

Reviewer C

Comment 1: Thank you for the opportunity to review this paper which is well written and summarises the authors evidence based experience with the Ponseti technique. Considerations:

At the outset my interpretation in reading this was that it was a summary of data reviewed from the database. I was therefore expecting a paper in a typical research layout (primary aims, methods, results etc). Consider revising for greater clarity that the paper provides a summary of author data presented in other published works.

Reply 1: Thank you for your comment. We have edited the Title and Abstract to emphasize that this is a review of our research at the Orthopaedic Institute for Children. Specifically, the Title now reads:

"Objective Analysis of Intermediate-Term Outcome of the Ponseti Technique: A Review of the Experience from Los Angeles"

The Abstract now reads:

"Here, we present a review of our body of work, which has improved clinical decision making as well as our ability to better inform our patients' parents regarding the treatment and prognosis of the Ponseti method."

Comment 2: Throughout the paper the authors utilise commonly reported terms around e.g 'non-adherent' families. Consider altering language throughout to

acknowledge families before an adherent status and to remove the perception of families compliance as the sole factor in relapse. eg. 'families who were unable to comply with bracing'.

Reply 2: While we appreciate the Reviewer's concern, we respectfully disagree that our manuscript presents a perception of compliance as a sole factor in relapse. It has been well documented by numerous investigators that nonadherence to recommended brace application by the parents is an important factor leading to relapsed deformity of the infant's foot.

It is not clear to us under what circumstances the Reviewer implies would lead parents being "unable to comply with bracing". We would point out that the patient cohort in our series has consistently included many low income families without private insurance. Brace adherence was not found to correlate with family income, educational background, or marital status. Nevertheless, our parents' adherence with bracing was at least comparable to that reported by others.

Therefore, we were unable to identify factors that rendered families unable to comply with bracing. In response to the Reviewer's comment, we have added the following to the manuscript:

"When all variables are taken into account, adherence to brace use was not found to correlate with annual family income ($P=0.50$), educational level of parents ($P=0.34$), or marital status of parents ($P = 0.76$). It should be noted that the majority of the patients' families had annual incomes of less than \$20,000."

Comment 3: Line 183 in the section on management of relapsed deformity consider referring to whether the 'same technique' (line 187) refers to long or short let casts. Clinicians may misinterpret.

Reply 3: We thank the Reviewer for this comment. To avoid misinterpretation by clinicians, we added "long leg" to describe the cast applications. The sentence now reads:

"In general, a relapse seen in a young infant was managed by a series of one to three manipulations and long leg cast applications using the same technique as that used originally to treat the foot."

Comment 4: In the section referring to walking age of children with clubfoot - consider referring to data on typical walking age to quantify a comparison to the general population.

Reply 4: We compared the mean age at which our clubfoot patients began to walk (14.5 ± 2.6 months) with data from the World Health association (12.1 ± 1.8 months). We have added this information to the revised manuscript as follows:

“Overall, the mean age at which our clubfoot patients began walking independently was 14.5 ± 2.6 months. In contrast, in healthy infants without clubfoot, the mean age at which patients begin to walk has been reported to be 12.1 ± 1.8 .”