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Response the comments on the article "Are early antero-posterior and lateral radiographs predictive of clubfoot relapse requiring surgical intervention in children treated by Ponseti method?" by Li et al

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Dear Colleagues,

We would like to thank you for your questions and comments regarding our work, recently published in the *Journal of Children Orthopedics*.[1] We have tried to answer, point by point, and to our best, your doubts and questions:

Why radiographs?

In our hospital, antero-posterior and lateral foot radiographs have been performed in patients with clubfoot since before the introduction of the Ponseti method about 15 years ago. Even after the advent of the Ponseti method, we continued to prescribe radiographs. Moreover, taking radiographs in patients with clubfoot is not totally out of date; radiographs are being taken in patients treated by the French functional physical therapy method.[2] We believe, therefore, that radiographs, although not expressly recommended by Dr. Ponseti, give more specific and objective information about the anatomical relationships of the foot than the simple physical examination.

Relapse

The recurrence rate of clubfoot after treatment with the Ponseti method is quite variable, as reported in the literature.[3] As an example, Sangiorgio et al.[4] reported that the recurrence rate after Ponseti treatment was about 30% at age 2 years and increased to 45% at age 4 years and to 52% at age 6 years. The recurrence rate of 23.1% reported in our work is therefore in line with that reported by Sangiorgio et al. and may be explained by the fact that we excluded patients with poor brace adherence. Therefore, we believe that further long-term studies are needed, despite the fact that the recurrence rate is positively correlated to the duration of follow-up.[4]

In this study, we defined recurrence as the need for surgical treatment after initial correction.[5,6] The deformities we found to be most frequently involved in recurrence were cavus and dynamic supination.[1]

Radiographic measurements

When designing this study, we took into consideration the fact that the shape of the tarsal bone of infants would vary with growth. Therefore, we decided to include an age of less than 3 months for initial treatment and radiographs performed 3 months after Achilles tenotomy. The reason is that the ossified part of the tarsal would not change too much during this short period of time, making the measurements more consistent. In addition, the measurement method used in the study was shown to have good intra- and inter-observer reliability.[1,7]

The clubfeet included in this study were corrected by initial treatment. A moderate midfoot break may be due to the fact that radiographs were performed with the patient awake, whose foot was held by an adult (Figure 4; B1);

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Figure 4 (B2) shows a more severe midfoot break.[1] Radiographs give the clinician the anatomical features of the foot.

We would like to thank our colleagues again for their very interesting remarks. We are currently following this cohort of patients over the long term, and we will not miss to publish our results, with particular attention to both the function and the radiographic appearance of the feet.

Author contributions

J.C.L. contributed in manuscript preparation, study design, performed measurements, patients follow-up, and statistical analysis. C.C.X. contributed in patients follow-up and performed measurements. Y.Q.L. contributed in patients follow-up and statistical analysis. Y.Z.L. contributed in patients follow-up. H.W.X. contributed in study design, reviewed the final manuscript, and approved the final version. F.C. contributed in study design, reviewed the final manuscript critically for important intellectual content, and approved the final version.

Declaration of conflicting interests

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