

Re: P Mang'oli, J Theuri, T Kollmann, NE MacDonald. Ponseti clubfoot management: Experience with the Steenbeek foot abduction brace. Paediatr Child Health 2014;19(10):513-514.

To the Editor;

Orthosis expenditure and compliance are both extremely important issues that can affect clubfoot treatment. Poor results and relapses could be associated with noncompliance due to economic, clinical and psychosocial reasons. Therefore, the study presented by Mang'oli et al (1) is not only scientifically relevant but also very important to developing countries or even to local areas within industrialized countries that are affected by poverty.

The mean age at enrollment of the patients was 24 months, and the mean duration of Steenbeek foot abduction brace (SFAB) wear was 18 months (range six to 28 months). Therefore, all of the patients used the SFAB for a period of at least six months and most for >18 months. The results of the study showed that the noncompliance rate was lower (15%) in the SFAB group compared with the traditional brace group (41%).

Our group has recently published a meta-analysis demonstrating that noncompliance was the main cause of relapse in the treatment of clubfoot (2). For example, the noncompliance rate in a study by Lehman et al (3) was 28.9% within a period of approximately six months after the initial correction. Although noncompliant patients had good results in 45.5% of cases, it is clear that compliance may be a problem within the first six months after casting correction.

I would like to know the opinion of the authors about the effect of time in their study and what explanation they would give for the fact that, after six months, the compliance rate was higher than expected in the traditional group. If possible, I would like to know how the authors evaluated the interference of psychosocial factors in compliance.

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REFERENCES

1. Mang'oli P, Theuri J, Kollmann T, MacDonald NE. Ponseti clubfoot management: Experience with the Steenbeek foot abduction brace. *Paediatr Child Health* 2014;20:513-4
2. Matos MA, de Oliveira LA. Comparison between Ponseti's and Kite's clubfoot treatment methods: A meta-analysis. *J Foot Ankle Surg* 2010;49:395-7.
3. Lehman WB, Mohaideen A, Madan S, et al. A method for the early evaluation of the Ponseti (Iowa) technique for the treatment of idiopathic clubfoot. *J Pediatr Orthop B* 2003;12:133-40.

The author responds;

The issues raised by Dr Marcos Almeida are indeed relevant to our study, and to clubfoot management in general. He is of the opinion that compliance varies with time, with which we are in agreement. However, in the absence of data, it is difficult to say at what time during bracing the compliance is the highest or lowest. Likewise, confounding factors, such as education level of the guardian/parent, financial status, additional support systems for the Ponseti treatment (counselling team), distance from home to health facility, etc, are likely to affect compliance. We attempted to capture as much data about these variables as was possible in our program. For instance, we incorporated a counselling arm to run parallel with the medical arm for clubfoot management. Specifically, before starting the treatment, potential clients undergo a counselling session in which they receive guidance on what to expect throughout the treatment phases. They are shown the brace ahead of time, and even see it worn by children already undergoing treatment. This prepares the clients psychologically; thus, they are not taken by surprise when the time comes for bracing. Furthermore, the counsellor keeps track of the patients, and follows up with those who miss an appointment. With this in mind, and from our general observation, we do not believe that there was a significant difference, if any, in compliance at six months compared with a period earlier than six months. On the contrary, we have the impression that compliance tended to decline with time due to fatigue, or a feeling that the correction had already been achieved and, therefore, no further need for bracing was seen. With regard to the psychosocial effect on compliance, our questionnaire addressed issues such as how difficult it was for parents to accept the brace, whether there was stigma from society regarding the use of the brace, etc. In summary, we believe that the practicability of the brace, together with incorporation of a counselling arm in the treatment of clubfoot, had a direct positive influence toward the high compliance rate that we observed. As Dr Almeida points out, these additional factors are crucial to be taken into account during prospective studies comparing compliance rates at different stages of bracing. We appreciate Dr Almeida elevating this important insight to its proper visibility.

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