Letter to the Editor

Surgical Technique: Medial Column Arthrodesis in Rigid Spastic Planovalgus Feet

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To the Editor:

I read with interest the article “Medial Column Arthrodesis in Rigid Spastic Planovalgus Feet” by de Moraes Barros Fucs et al. [1] published online in November 2011. The study introduced a surgical technique to perform medial column arthrodesis in feet with rigid spastic planovalgus. I agree this technique can achieve a successful medial column reconstruction by means of arthrodesis. However, I have several questions and concerns.

First, rigid spastic planovalgus is a complex deformity involving the medial column, lateral column, and hindfoot [3]. Although surgical trends continue to evolve, many basic principles have endured. Lin and Myerson [3] emphasized that restoring the hindfoot-midfoot-forefoot relationships and muscle balance was critical to correct the entire planovalgus foot deformity. The technique of de Moraes Barros Fucs et al. appears not to address the hindfoot and they express no views regarding this part of the deformity. To my understanding, it is well accepted to correct severe hindfoot deformity by means of either triple arthrodesis or calcaneal osteotomy [3, 4]. Therefore,

I question whether valgus deformity of the hindfoot existed preoperatively and postoperatively in the patients reported, or in those in whom the authors would think the procedure indicated. Do the authors have data regarding hindfoot deformities or any views regarding how to achieve comprehensive alignment with this technique?

Second, Wünschel et al. [5] showed degeneration of the adjacent joints was inherent to the arthrodesis. Degenerative osteoarthritis in joints adjacent to the medial column arthrodesis joint was not reported by de Moraes Barros Fucs et al. [1]. Did the authors find any such degenerated joints or transference of pain in the forefoot after medial column arthrodesis?

Third, hardware frequently is associated with complications in foot operations [2]. In the lateral radiograph (Fig. 2B in the article by de Moraes Barros Fucs et al. [1]), the screw in the talar head was obviously too long. They did not mention pain and/or skin problems even though the hardware was likely palpable. Considering the plate was placed in the inferior facet of the medial column, I wonder whether there was any impingement between the tendon (flexor hallucis tendon, tibial posterior tendon, etc), nerve, or vessel and the plate. Did this patient or others have symptoms from hardware? Did any patients require hardware removal? If no patient had hardware-related problems, can the authors offer guidance regarding plate and screw placement to avoid the tendon, nerve, vessel injuries, and impingement?

Finally, in terms of the details of the operative procedure, how did the authors deal with the insertions of the anterior tibial and posterior tibial tendons? They mentioned only the periosteum and cartilage were removed in the procedure. The anterior and posterior tibial tendons play important roles in maintaining balance of the foot with an intact subtalar joint in the authors' technique. How were

(Re: de Moraes Barros Fucs PM, Svartman C, de Assumpção RM, Yamada HH, Simis SD. Surgical technique: medial column arthrodesis in rigid spastic planovalgus feet. *Clin Orthop Relat Res*. 2011 November 19 [Epub ahead of print])

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these insertions treated? Did any patients experience imbalance with time?

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