Letter Regarding: Cost of Headless vs Headed Screw Fixation for Calcaneal Osteotomy and Subtalar Arthrodesis

To the Editor:

I congratulate the team of Dr Boren and colleagues on publication of their study "Cost of Headless vs Headed Screw Fixation for Calcaneal Osteotomy and Subtalar Arthrodesis," published in *Foot & Ankle Orthopaedics*, volume 6(1).[1] Their work presents an interesting analysis of costs associated with hardware removal in calcaneal osteotomy and subtalar arthrodesis cases. The clinical literature is lacking on cost analyses, which assess extended patient care, including revisions and removals, and this work adds much-needed data in that area.

That said, review of the article suggests that it is missing some key information for completeness, and through this Letter to the Editor I would like to request that missing data which would improve the study's usefulness to the field.

The article states that "we compared the rate of nonunion following fixation" and that "secondary outcomes included the rate of nonunion." However, the actual rates of nonunion for both screw groups were only explicitly listed for the calcaneal osteotomy patient groups. Although the article states that "There was no difference in the rate of nonunion after subtalar arthrodesis between the 2 groups," this is a relative or comparative assessment only. The absolute subtalar union rates for both groups should be listed, as that would be far more useful to the field, as it would allow others to "compare and/or contrast their data with data reported in the literature."[2] As the rate of nonunion for both procedures is an explicitly listed secondary outcome of the study, it should be explicitly listed in nonrelative values for both screw groups.

The article also states that "the secondary outcome measure was the union rate of subtalar arthrodesis as determined by computed tomography (CT) or radiographic review. Successful arthrodesis was defined as >50% fusion mass of the posterior calcaneal facet as determined on 3-mm-cut CT. Radiographic arthrodesis was defined as complete bridging callus or trabeculation across the subtalar joint." It would be beneficial for the authors to include how many patients per group were assessed by CT vs radiographs, as well as the union rates as assessed by each imaging modality, as the literature documents somewhat large differences between radiograph-assessed fusion and the more vigorous and accurate 3-dimensional CT-assessed fusion.[3] For example, in one recent study, an internal comparison showed that radiograph-based fusion rates were more than 30% higher than CT-assessed fusion rates.[4]

Addition of both the explicit subtalar union rates and the fusion assessment breakdown should not pose a significant burden to the authors, as the data needed should already be available as listed in the current article. The addition of this information should strengthen the article and make it more relevant for assessment both on its own and in comparison to other previously published clinical data.

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