Reviewer’s report

Title: 3D Correction of AIS in Braces Designed Using CAD/CAM and FEM: a randomized controlled trial.

Version: 0 Date: 19 Oct 2016

Reviewer: Charles d'Amato

Reviewer's report:

The authors have written one of the most fascinating articles on the topic of bracing for adolescent scoliosis. Some of the authors have publications on finite element modeling applied to optimization of bracing for scoliosis dating from at least two decades. Now we see the application of 3D technologies such as surface topography, 3d reconstructions from EOS, finite element simulations and CAD/CAM applied together attempting to make the most effective and comfortable brace for adolescent idiopathic scoliosis. The authors have shown that the addition of finite element modeling data improved the initial in brace corrections in 3D compared to controls. Also, the orthotist is guided in the building of corrective forces into the brace along the plane of maximum curvature (PMC). The true clinical results of this approach will be known with further follow up.

Level of interest
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An exceptional article

Quality of written English
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Acceptable

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