To: Editor, The Angle Orthodontist

Re: Response to: Labio-lingual root control of lower anterior teeth and canines obtained by active and passive self-ligating brackets. Paolo M. Cattaneo; Raaid A. Salih; Birte Melsen; The Angle Orthodontist, 2013;83(4)691–697.

We would like to thank Dr. Zhao for his interest in our paper. In reply, we are taking the occasion to briefly report some results that were omitted from the original manuscript.

1. Regarding the comment concerning differences in prescription between the bracket systems, this question is quite pertinent. However, by looking at the pre- and after-treatment canine labio-lingual inclination it can be seen that for both passive and active SLBs the inclination was the same before as well as after intervention. Thus, the different prescription of the brackets does not seem to play a role.

2. Regarding the comment questioning use of the occlusal plane as a reference, Dr. Zhao has a point. Indeed, the occlusal plane is changing during treatment. For this reason, in our research we measured the inclination of the teeth in comparison to several planes, which for brevity were not presented in the article. Two of these planes were the mandibular plane (as suggested by Dr. Zhao) and a plane passing through the 4 mandibular foramina (the posterior points being placed at the entrance of the mandibular canal on both sides; the anterior points being placed at the antero-inferior rim of the mental foramen on both sides - as geometrically, only 3 points can define a plane, an interpolation function was used). The latter plane was used as a control plane, due to the stable characteristic of the foramina. The inclination of the canine to the mandibular plane for the passive SLB was 95.11 and 95.63 before and after tx respectively, while for the active SLB was 95.07 and 96.12. The inclination of the canine to the foramina plane for the passive SLB was 95.11 and 95.63 before and after tx respectively, while for the active SLB was 95.07 and 96.12.

So, the inclination did not change much even in respect to the other two planes. The reason why the occlusal plane was chosen is related to the fact that the inclination of the teeth to this plane is more relevant from a clinical point of view.

3. Regarding the comment referring to use of reverse-curve archwires, we do understand the concerns of Dr. Zhao. However, as the patients were randomly assigned to one of the groups and considering that the patients were treated in the same clinic, a similar approach was followed in case of overbite. Therefore, we do believe that the effect of using reverse-curve arch wires should have been cancelled between the groups.

4. Regarding the last comment, in fact, it was not the aim of this study to compare SLB system to conventional brackets. What we wrote is simply what we saw in relation to SLB. On the other hand, it will be very interesting if this phenomenon is present for conventional brackets as well.

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