Dear Sir,

I have read with interest the article by Chhibber et al., (2011) comparing the changes produced by the Begg appliance and the preadjusted edgewise appliance (PEA) on vertical dimension. The theory of the occlusal wedge hypothesis has been researched extensively in recent times for its appropriateness in the clinical treatment scenario and no firm evidence has been substantiated (Sivakumar and Valiathan, 2008; Gkantidis et al., 2011). I have few concerns that I would like to raise.

The present study results could have been more valid if a control sample (non-extraction group) has been used in each group (Begg and PEA). This would have allowed the treatment changes from the extraction protocol to be assessed.

The authors reported that in cases (PEA) where the bite deepened, an intrusion arch was used. There was no explanation in the article as why there was closure of the bite (Figure 2(d) in the article). It is a little unusual to retract the canines in round wire in a straight wire mechanics (except the Alexander Discipline mechanics). Could this have been a possible reason or really the occlusal wedge hypothesis in action?

The authors discussed that the Begg technique was marginally better at conserving anchorage than the PEA. As part of the study protocol, the authors never considered any form of anchorage support in the PEA cases although the conventional Begg technique had inherent differential anchorage support. Hence, it is prudent to argue that there will be more anchorage slippage in the authors’ PEA sample. I feel that our treatment mechanics and protocols should dictate the treatment outcome and not the technique as such.

Even though the sample included subjects in cervical vertebral maturation (CVM) stage VI of skeletal maturity, the contribution of ‘residual growth’ to the treatment effects needs clarification. The increase in face height and the mesial movement of molars could be consequent to mechanotherapy or residual growth (Gardner et al., 1998; West and McNamara, 1999).

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References