

Letters From Our Readers

To: Editor, *The Angle Orthodontist*

Re: Salivary leptin levels in normal weight and overweight individuals and their correlation with orthodontic tooth movement. By Tamizhmani Jayachandran, Bhadrinath Srinivasan, Sridevi Padmanabhan. *Angle Orthod.* 2017;87:739-744.

We thank the readers for the interest taken to read our research. The clarifications for the queries raised are as follows:

The objective of our study was to evaluate the salivary leptin levels during orthodontic tooth movement in overweight and normal weight individuals. Leptin's influence on body fat mass is best studied by assessment of serum levels.^{1,2} GCF is considered to be a serum exudate³ and the quantity of leptin secreted in GCF is low when compared to salivary leptin. As salivary leptin concentration is reflective of serum leptin concentration,⁴ and also because collecting salivary samples is non-invasive, we therefore chose to measure salivary leptin concentration.

All of the patients in the study were given a transpalatal arch to reinforce posterior anchorage. Study models were also assessed thoroughly initially at pretreatment and three months post treatment for mesial movement of posterior teeth, and no anchorage loss was detected in any of the study models. Dilsiz et al.⁵ also showed a similar measurement from the distal contact point of the canine to the second premolar and the tooth movement was measured. There might be chances of mesial movement during leveling and alignment stages but, in our study after thorough evaluation of study models, we did not find any possible movement of the posterior teeth. The influence of anterior teeth alignment on the amount of tooth movement measured is an important factor pointed out by the reader. But it is one of the inherent limitations in studies assessing tooth movement involving extraction of premolars.

We collected salivary samples before force application (T_0) and 1 hour (T_1) and 1 month (T_2) after force application. Studies have demonstrated that several pro-inflammatory cytokines tend to increase after force application in 1 hour, 24 hrs. and later the system stabilizes and reaches a new physiologic homeostasis until the next activation.^{4,5} The (T_0) samples were taken immediately before force application, i.e. before placement of initial arch wires.

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