## **Letters From Our Readers**

## To: Editor, The Angle Orthodontist

Re: Pulp blood flow and sensibility in patients with a history of dental trauma undergoing maxillary expansion. Raymond Lam; Mithran S. Goonewardene and Steven Naoum. Angle Orthod. 2020; 90:695–701.

We would like to congratulate the authors for their work. This was an interesting and extensive study and we would like to pose a few questions regarding the article:

- It was not mentioned whether the factor of menstruation was taken into consideration during measurement of pulpal blood flow (PBF) using the laser Doppler flowmetry (LDF), since more than 60% of the sample was female. The PBF during the menstrual phase is significantly lower than during the mid-cycle period.
- 2. Did you evaluate closure of the root apices of the anterior teeth before measurement of PBF? Teeth with constricted apical foramina that have history of trauma are more susceptible to strangulation of apical vessels during tooth movement whereas teeth with narrow apical foramina with traumatic

history maintain sufficient pulpal perfusion during orthodontic treatment.

- 3. It was not mentioned whether the PBF was measured at the same time of the day at each of the time points (T1,T2,T3). PBF is subject to diurnal variation or circadian rhythm.
- 4. Can you explain more about expansion protocol that was employed? Why did you choose the sequence of changing the rate of expansion from days 1-3, 4-10 and 11 onward as described?
- 5. Was the stage of mid palatal suture maturation assessed before the application of rapid maxillary expansion?
- 6. Was a rubber dam used for measuring PBF using LDF, as LDF is sensitive to contamination from blood flow in adjacent tissues?

Thank you for considering our questions and providing more information about the interesting findings presented.

Prateek Gupta, Navneet Singh, Tulika Tripathi

Department of Orthodontics and Dentofacial Orthopedics, Maulana Azad Institute of Dental Sciences, New Delhi, India