Association between root resorption incident to orthodontic treatment and treatment factors

Sir,

We read with interest the article about the association between root resorption and orthodontics by Motokawa et al. (2012). The prevalence and degree of root resorption induced by orthodontic treatment in association with treatment factors was well described by the authors. The results of their study indicated that orthodontic treatments with extractions, long-term use of a multiloop edgewise arch-wire appliance and elastics, treatment time, and distance of tooth movement are risk factors for severe root resorption. However, there are some limitations in the material and method section that we want to draw attention. In addition, the factors that might affect the root resorption have not been completely discussed.

As stated in the literature (Weltman et al., 2010), patient-related and external factors are believed to be associated with increased root resorption. Patient-related factors (Weltman et al., 2010) such as genetic predisposition, root shape, endodontic treatment, alveolar bone density, oral habits, trauma, age, gender, and the severity and type of the malocclusion should be considered when planning study about root resorption. The subjects included in their study were orthodontically treated patients aged 9–51 prior to the treatment (mean age: 18.9 ± 6.7 years). According to Mirabella and Artun (1995), the resorption pattern might be more extreme in adults, and a higher proportion may be severely affected. Since age is an important factor that might affect the amount of root resorption (Mirabella and Artun, 1995; Jiang et al., 2010), this wide age range present in their study should be checked for the efficiency on root resorption by means of multiple logistic regression analysis as previously done by several authors (Artun et al., 2005). It might be better to see age and sex distribution of the patients in the subgroups they investigated.

In the discussion section of the article, many factors have been described to have possible affects on root resorption. However, information about the presence of endodontic treatment and developmental anomalies was not present in the article. In addition, patient-related factors such as sex and age should also be discussed in the text. Thus, we think that readers of European Journal of Orthodontics might consider these factors while reading this article.

Mevlüt Çelikoğlu*, Koray Haliçioğlu** and Murat Çağlaroğlu***

*Department of Orthodontics, Faculty of Dentistry, Karadeniz Technical University, Trabzon, **Department of Orthodontics, Faculty of Dentistry, Izzet Baysal University, Bolu and ***Department of Orthodontics, Faculty of Dentistry, Kirikkale, Trabzon, Turkey

References


Reply

Sir,

We thank Dr Çelikoğlu et al. for their interest in our study. I would like to answer the comment about the age of patients in this study.

As you mentioned in your letter, patient-related factors such as genetic predisposition, root shape, endodontic treatment, alveolar bone density, oral habits, trauma, age, gender, and the severity and type of the malocclusion are important risk factors of root resorption. Particularly that the initial