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## EDİTÖRE MEKTUP

### LETTER TO THE EDITOR

15 yaşında malokluzyona sahip bir bayan hasta kliniğimize ortodontik tedavi amacıyla başvurdu. Klinik muayenesinde maksiller sağ birinci molar diş çürüktü. Mandibulada ise sol birinci molar dişin çürük olduğu tespit edildi. Hastadan alınan panoramik radyografi mandibular sol kanin dişin iki kökü olduğunu gösterdi.

#### LETTER TO THE EDITOR

A 15-year-old girl who had malocclusion presented to our clinic for orthodontic treatment. On clinical examination, the maxillary right first molar and mandibular left first molar were carious. A panoramic radiography was taken as a screening film after the clinic examination. Radiographic imaging showed that mandibular left canine had double roots (Figure 1).



Figure 1. Panoramic radiograph of a 15-year-old girl showing the double-rooted mandibular left canine.

Many clinicians have the perception that a given tooth will contain a specific number of roots and/or root canals. Careful evaluation of research material has, however, shown that variations in tooth morphology may occur. Even though the most

common anatomy of mandibular canines comprises a single root and a single root canal, the presence of two roots in mandibular canines is also observed. Laurichesse et al.<sup>1</sup> described the second root of mandibular canines in 1% of cases. A previous study<sup>2</sup> that investigated the internal anatomy, direction and number of roots and size of 830 extracted human mandibular canines found only 1.7% of the teeth with two roots and separate two canals. In this report, double rooted mandibular canine tooth in a patient seeking for orthodontic treatment was detected.

The etiology of the teeth with supernumerary roots has, so far, not been intensively studied and researched. A defect in the dental lamina at the early stage of root formation could be an etiological factor in multirooted canines. It is also possible that trauma or disturbances during the morphodifferentiation of canines might affect the tooth norm and size.<sup>3</sup> It is suggested that fusion or germination may be related to the clinical presentation of supernumerary roots. Such abnormalities may be genetically determined or be associated with environmentally induced cellular changes.<sup>4</sup> In the present case, however, there was no history of trauma and no double rooted tooth in the sibling of the patient. Additionally, the mediobuccal and faciolingual width of the mandibular canine were measured using a study model and these dimensions were almost equal when compared with the symmetric canine in the mandible and thus the doublerooted mandibular canine detected in the present report could not be attributed to a special cause.

Diagnosis and identification of the number of roots and root canals are key factors for endodontic treatment. Bifurcations in the cervical and middle



thirds may be observed radiographically when the x-ray incidence angle does not cause superimposition of images. In mandibular canines, bifurcation at these sites has been shown to occur in 43.1% of the situations.<sup>5</sup> In the present case, identification of the second root was evident. However, it does not always occur. Identification of the second root is even more difficult in the presence of tooth crowding. Therefore, the radiographic image should be carefully analyzed in order to interpret and identify details that may suggest the presence of bifurcations or trifurcations, such as sudden root canal discontinuity.

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