

Editorial

A Matter of Impaction

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EDITORIAL

Impacted teeth are surely a challenge for orthodontists, oral surgeons and general dentists. Among all, impacted canines are the teeth that have the most relevant clinical impact, due to their aesthetical and functional importance for the occlusion. There is still an open debate about the most efficient type of intervention to resolve a canine impaction. Kokich [1] provided a nice classification, and suggested to perform an apically repositioned flap for buccally displaced canine, when the crown is above the mucogingival line, and to perform an early uncovering of palatally displaced canines and wait for the autonomous eruption of the tooth, even in adult patients [2]. On the other hand, some authors proposed that closed orthodontic traction provides some advantages in terms of treatment time and predictability, compared to uncovering and autonomous eruption [3]. Some evidence exists that a closed eruption with a tunnel technique is respectful of the periodontal tissues [4], but a Cochrane review on this topic was unable to find eligible studies, and concluded that high-quality randomized clinical trials are needed [5]. All these techniques are the results of the efforts in trying to reduce the co morbidities that can accompany the treatment of impacted teeth, like loss of periodontal attachment, root resorption and loss of vitality, but in conclusion, no clear evidence exists to recommend a technique over the other. Besides the choice of the surgical technique, planning of orthodontic traction modality is equally important, and assessment of the impacted tooth's position, surrounding structures, and the ideal eruption path, is crucial. Regarding this aspect, I found interesting the work by Alqerban and colleagues [6], that demonstrated with a high confidence level that there was no difference in treatment planning when the clinician had 2D or 3D radiographs to evaluate impacted teeth. I think that these results should remind us the ALARA (as low as reasonably achievable) principle and re-consider the use of CBCTs and other 3D radiographs, which are often abused [7], and should be the impulse for further research. With all these considerations in mind, the results of Becker and Chaushu [8] are particularly interesting, because underline the role of environmental factors in the etiology of canine impaction, over genetic factors. From a clinical point of view, this means that in most of the cases there are local factors that cause the impaction, and the clinician can intervene on those factors. Intercepting those local causes at an early stage can resolve the developing impaction, without having to face with the above-mentioned risks: again, prevention is the best option. Some interesting studies have demonstrated that the extraction of the deciduous canine alone [9] or in combination with rapid palatal expansion [10], as well as the extraction of the first primary molars [11], are effective in modifying and improving the eruptive path of maxillary canines that are at risk of impaction in most cases, but not in every patient. People's

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awareness about dental problems is increasing; therefore there is the possibility to start monitoring patients at early stages of dental development: further studies are needed to improve our knowledge and evidence about interceptive treatment of tooth impaction, to be able to intervene to prevent the development of such complex dental anomalies.

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