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CASE REPORT

Extraction of a lower incisor as a treatment alternative in orthodontic treatment. Case report

Extracción de un incisivo inferior como alternativa en el tratamiento ortodóncico. Presentación de caso clínico

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ABSTRACT

Male pacient, 17 years 2 months of age, with a slight facial assimetry and convex profile. He was a hyperdivergent skeletal class II with bilateral molar class I, bilateral cuspid class II, mild crowding on the upper and lower arches, OD 31 with a bucal possition, increased overbite, and normal over jet. It was determined as a treatment plan: the use of MBT technique slot 0.022, extraction of the first maxillary bicuspids and one mandibular incisor as an alternative for dental compensation due to the degree of crowding. Functional bilateral molar class II and a bilateral canine class I was obtained as well as anormal overbite and overjet, incisor guidance and harmonic smile.

RESUMEN

Se presenta a un paciente masculino de 17 años dos meses de edad, con ligera asimetría facial y perfil convexo, presenta clase ósea II, patrón hiperdivergente, clase I molar bilateral, clase II canina bilateral, apiñamiento leve en arcada superior e inferior, OD 31 vestibularizado, sobremordida horizontal aumentado y sobremordida vertical dentro de la norma. Se determinó como plan de tratamiento el uso de brackets MBT slot 0.022" con la extracción de primeros premolares superiores y de un incisivo central inferior como plan de tratamiento compensatorio debido al grado de apiñamiento que presentaba obteniendo clase molar II funcional y canina I bilateral, sobre mordida horizontal y sobre mordida vertical adecuados, guía incisiva, desoclusiones en lateralidades y una sonrisa armónica.

Key words: Extraction of mandibular incisor, skeletal class II.
Palabras clave: Extracción de incisivo inferior, clase II esquelético.

INTRODUCTION

During orthodontic treatment, Nanda mentions that the removal of a lower incisor is one of the alternatives in cases of overcrowding in the mandibular arch.[1] The removal of mandibular incisors is an appropriate therapy in certain types of carefully selected malocclusions. It is especially suitable for patients with skeletal class I and mild skeletal class III malocclusions with a slight tendency to open bite.[2] According to Zachrisson, the removal of a lateral incisor is generally preferred because it is less noticeable aesthetically, but the incisor that is farther outside of the natural arch and closest to the crowding is usually the best candidate to be extracted.[3]

It is important to mention that, when teeth are aligned to correct the crowding, it is necessary to check that there is enough space in the arch by performing the necessary measurements in order to determine which incisor to remove thus achieving an optimal occlusion that will provide function, stability and aesthetics.[4] The removal of a lower incisor has many advantages with respect to premolar extractions: first, it reduces treatment time (especially if the crowding occurs in the anterior region); second a more stable treatment is expected in the anterior region because intercanine width is not altered significantly. Finally, since it requires minimal retraction unlike cases of premolar extractions, the anteroposterior position of the mandibular incisors does not change significantly so a harmonic profile may be maintained. Extraction of a lower incisor has some disadvantages, for example: if there is a Bolton discrepancy lower space closure will result in an overjet increase.[5]

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Male patient, 17 years 02 months of age, who referred as reason for consultation «I want to fix my teeth because they are crooked». Extraoral frontal and smile photographs were obtained as well as a profile photographs. An oval facial contour and good

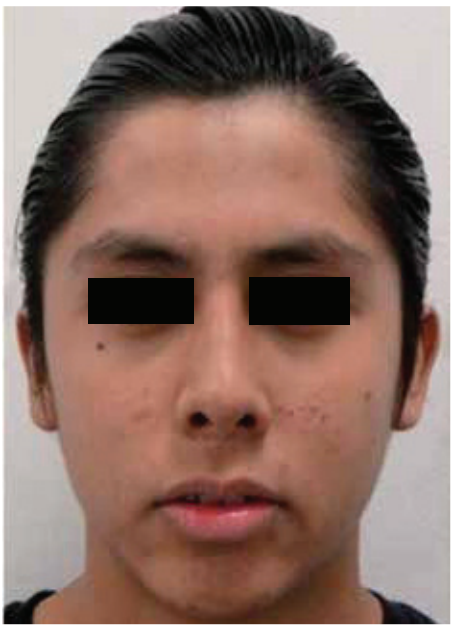

Figure 1. Initial frontal photograph.

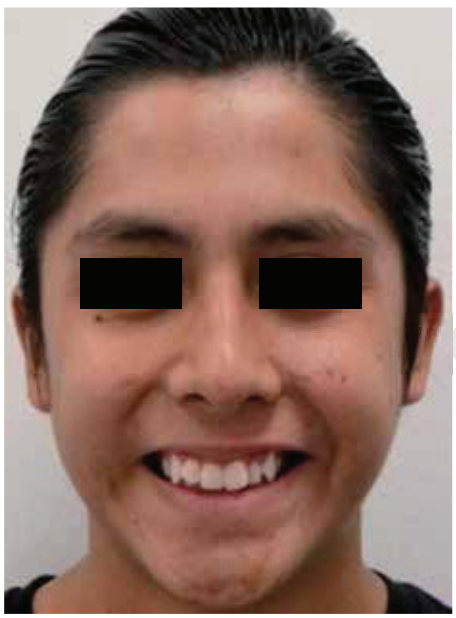

Figure 2. Initial smile photograph.

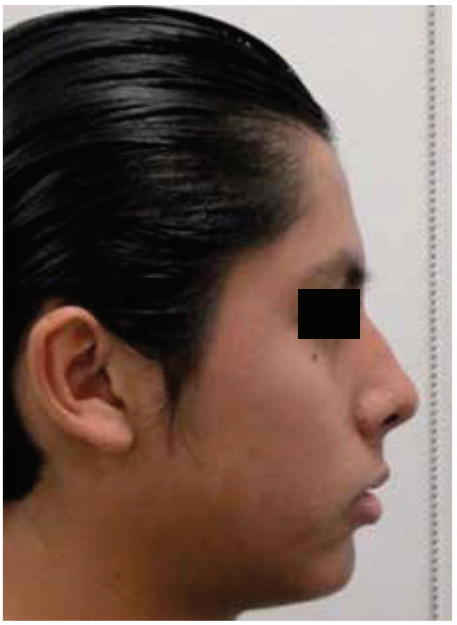

Figure 3. Right profile photograph.

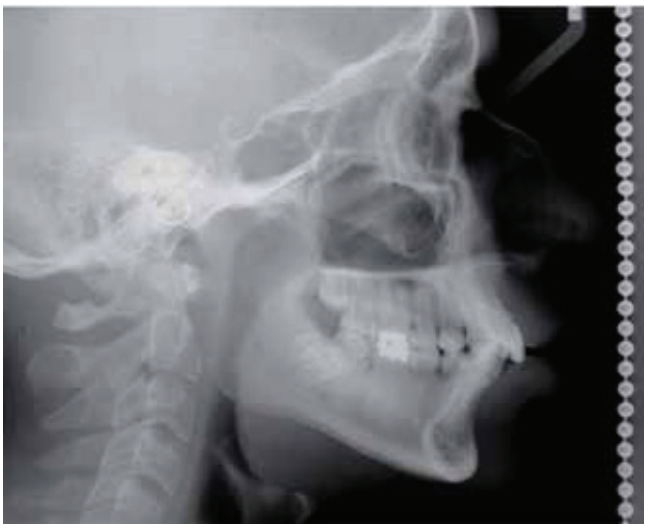

Figure 4. Initial lateral headfilm.

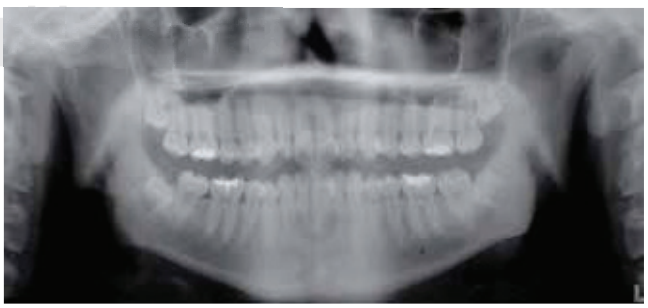

Figure 5. Initial panoramic radiograph.