

Supernumerary Teeth: Case Report

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Abstract: The hyperdontia is a term that refers to the development of supernumerary teeth, which are described as excess teeth, that is, over the physiological amount of the dental arches. Therefore, the supernumerary teeth are considered a development anomaly that may several etiological factors [1]. The cause is uncertain, but, a large number of hypotheses have been proposed and sufficient material has been accumulated to prove the origin of these extra teeth. Between these theories, the most widely accepted is that the hyperactivity of the dental lamina in the initiation stage, resulting in a new tooth. Another hypothesis indicates to a syndromic association. Complications may also arise due to the presence of these teeth, such as late tooth eruption and the development of odontogenic cysts [2]. The objective of this article is to emphasize a clinical case about supernumerary teeth. The knowledge by the dental-surgeons about supernumerary dentition is of fundamental importance to provide a correct and timely diagnosis for treatment.

Keywords: Oral Surgery; Supernumerary Teeth; Oral Pathology

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I. Introduction

Dental anomalies can be caused by local and systemic factors, which cause developmental disorders and result in structural abnormalities of the enamel and/or dentin, such as abnormalities in shape, size, and number. The hyperdontia is a term that refers to the development of supernumerary teeth, which are described as excess teeth, in addition to the physiological amount of teeth that constitute the dental arches. So, the supernumerary teeth are considered a development anomaly that can have several etiological factors [1]. The cause is still uncertain, but the hypotheses were purpose. Of these theories, the most widely accepted is that the hyperactivity of the dental lamina in the initiation stage, resulting in a new tooth. Another hypothesis is that of syndromic association. Complications can also arise due to the presence of these teeth, such as the late eruption of the teeth, the development of odontogenic cysts, the dentin reabsorption in the adjacent teeth, changes in the position of the permanent teeth, the occlusal change, the abnormal sequence, tooth eruption, crowding, cavities, inflammation of the gums and periodontal abscesses [2]. The supernumerary teeth can manifest on the oral cavity area, uni or bilateral, maxilla or jaw, disrupted or impacted, and can be only one or several teeth [4]. The diagnosis is clinically made and according to tooth disruption, but, when the tooth remains included and does not have symptoms, it is based on a panoramic radiographic exam, because of the huge view of the dental arch [3]. The treatment varies since maintaining the supernumerary with regulars' X rays exams to the surgical removing, which is the last option on the treatment in most of the cases, the purpose is preventing the development of problems commonly associated with these [2]. Simple bone cysts normally do not produce symptoms and are discovered during radiographic exams requested for other reasons [1], [3], [8], [10], [13]. The presence of pain, edema, paresthesia, displacement and root resorption of the involved tooth, fistula and pathological fracture has been reported on rare occasions [14]. Pulp vitality is unlikely to be altered even in the case of teeth in which the roots are associated with the lesions. However, cystic expansion may increase the root

pressure due to traumatic force, with a consequent temporary reduction in the response to the electric pulp test [13].

II. Case Report

Male patient, XX years old went to the Clinic School of Dentistry of the State University of Piauí to make a dental surgery as treatment. In the clinical examination, there were supernumerary teeth on the right side of the hard palate area and on the lingual region of the mandible, bilaterally. In the panoramic radiography, he has supernumerary teeth in the region of mandibular premolars, bilaterally, and asymptomatic. In clinical examination, there was a discreet bulging in the lingual region of the 45, 46, 35, and 36 teeth (Figure 1).

Anesthesia was performed by a regional block of the right and incisor Mentonian nerve, and of the subperiosteal infiltrative terminal type in the region of the right oral floor. An intrasulcular incision was made by lingual and envelope flap. The flap extended from the lingual region of the lower central incisor to the first bilateral molar. Mucoperiosteal detachment followed by osteotomy in a high-speed pen, simultaneously with isotonic saline irrigation (Figure 2).

To facilitate the removal of the dental element and for less morbidity to the patient, we opted for the dental section, which was performed perpendicular to the long axis of the tooth, separating the crown and root. The levered root fragment was removed. Plentiful irrigation was performed with 0.9% saline in order to remove any type of residue, regularize the edges of the surgical room with bone file, and repositioning/suturing the flap with 5-0 Nylon thread (Figure 3).



Figure 1 (a): Anesthesia. Figure 1 (b): Removal of the first dental element. Figure 1 (c): Repositioning/suturing the right flap.

The second procedure occurred without complications, on the jaw, as the first one. It is a common surgical procedure made in dentistry clinics (Figures 4 and 5).



Figure 2 (a): Removal of other dental elements. Figure 2 (b): Repositioning/suture of the left flap.

III. Discussion

The case reported is a rare example of a huge number of supernumerary teeth in the teeth arch of a male patient. There is a frequency in the study of number dental anomalies, these vary according to the studied population [2, 6-8]. The hyperdontia is a development alteration that results in an increase of the teeth number in which diagnosis happens in a satisfactory way if there is clinical examination plus image exams [1-5, 7,9].

Thus, according to the positioning of the tooth, if there is a suggestion of injuries to regions such as the lower alveolar nerve, a cone-beam computed tomography that provides the observation of the anatomical relationship of the tooth with the mandibular canal must be requested [4]. Other structures can also be injured by the extraction or permanence of supernumeraries, such as adjacent teeth and the maxillary sinus [5,8,9].

The way to proceed after the observation of these teeth is better defined with correct identification of the elements, exams that show the exact position it occupies in the jaws, needs for extraction, functional problems and if there is the possibility of surgery without the risk of damage to the patient [1,2,6,8]. After that, the procedure must be carefully planned to repair the life quality of the patient. Respecting those factors, it is possible to obtain satisfactory results with the patient and the dental surgeon [5].

IV. Conclusion

The right evaluation of the supernumerary teeth is very important, and depending on the case, make the surgery procedure what was the proposed treatment to this case. Besides that, image exams with clinical examination may be allied to better diagnosis and planning.

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