

Reanatomization of conoid teeth in a patient with epilepsy: a case report
Reanatomização de dentes conóides em paciente com epilepsia: relato de caso
Reanimación de dientes conoides en un paciente con epilepsia: reporte de un caso

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Abstract

The conoid teeth are anomalies of size and shape changing the harmony of smile, may affect self-esteem of the patients. The aim of this case report was describe a reanatomization of

conoid teeth in a patient with epilepsy and mental deficit. A sixteen- years-old boy presented to Department of Pediatric Dentistry and Orthodontics at the Federal University of Rio de Janeiro, the with chief complaint of poor dental aesthetic due to small teeth. During the anamnesis, the upper lateral incisors showed reduced size and conoid shape, diastemas and harmful smile harmony. Therefore, the clinical conduct was performed with the aim of restore the self-esteem and allows a harmonic smile, by means of reshape with indirect composite resin.

Keywords: Disabled persons; Anodontia; Dentistry operative.

Resumo

Os dentes conóides são anomalias de tamanho e forma alterando a harmonia do sorriso, podendo afetar a autoestima dos pacientes. O objetivo deste relato de caso foi descrever a reanatomização de dentes conóides em um paciente com epilepsia e déficit mental. Um menino de dezesseis anos se apresentou ao Departamento de Odontopediatria e Ortodontia da Universidade Federal do Rio de Janeiro com queixa principal de estética dentária deficiente devido aos dentes pequenos. Durante a anamnese, os incisivos laterais superiores apresentavam tamanho e formato conóide reduzidos, diastemas e harmonia prejudicial ao sorriso. Portanto, a conduta clínica foi realizada com o objetivo de restaurar a autoestima e permitir um sorriso harmônico, por meio de remodelagem com resina composta indireta.

Palavras-chave: Pessoas com deficiência; Anodontia; Dentística operatória.

Resumen

Los dientes conoides son anomalías de tamaño y forma que alteran la armonía de la sonrisa, pueden afectar la autoestima de los pacientes. El objetivo de este informe fue describir una reanatomización de dientes conoides en un paciente con epilepsia y déficit mental. Un muchacho de dieciséis años se presentó en el Departamento de Odontopediatria y Ortodoncia de la Universidad Federal de Río de Janeiro, con la principal queja de mala estética dental debido a dientes pequeños. Durante la anamnesis, los incisivos laterales superiores mostraron tamaño reducido y forma conoide, diastemas y armonía de sonrisa dañina. Por tanto, la conducta clínica se realizó con el objetivo de recuperar la autoestima y permitir una sonrisa armónica, mediante remodelación con resina composta indirecta.

Palabras clave: Personas con discapacidad; Anodoncia; Operatoria dental.

1. Introduction

The aesthetics perspective has an important influence on life of individuals and may affect their self-esteem and social behavior (Santezi, Bortolatto, Floros, de Andrade & Dovio, 2016). Conoid teeth are anomalies of size and shape changing the harmony of smile. It is characterized by smaller teeth size with cone-shaped crown anatomy and the apex in the incisal edge (Martini et al., 2016). Studies suggest that this anomaly is more frequent in women, mainly affecting the permanent dentition, especially the upper lateral incisors

Various are the dental treatment options to restore the shape, aesthetics and often the function of the dental elements, for example: laminated facets, ceramic crowns or to less invasive alternatives such as use of restorations in direct or indirect resins (Blanco, Veloso, Monteiro & Silva, 2012). Before the various techniques no market, the dentist should propose a correct treatment with indication of and make material of choice for each case.

2. Methodology

The present work is a case report of aesthetic and functional treatment in a pediatric patient with special needs. After the execution of the treatment plan, the person responsible for the patient signed the Informed Consent Form.

3. Case Report

The present work is a case report of aesthetic and functional treatment in a pediatric patient with special needs. After the execution of the treatment plan, the person responsible for the patient signed the Informed Consent Form.

A sixteen-years-old boy was brought by his mother to the Department of Pediatric Dentistry and Orthodontics at the Federal University of Rio de Janeiro, Rio de Janeiro, Brazil, with the chief complain of poor dental aesthetics due to small teeth. The patient has epilepsy with mild mental deficit and takes daily use of anticonvulsant (Vaproic Acid) and antipsychotic (Risperidone). Other health conditions have no importance to the case.

During the anamnesis, clinical and radiographical exams periapical and periodontal morbidities were disregarded. However, the upper lateral incisors showed reduced size and

conoid shape, diastemas and harmful smile harmony (Figure 1). Therefore, the clinical conduct was performed with the aim of restore the self-esteem and allows a harmonic smile.

Figure 1. Initial clinical aspect.



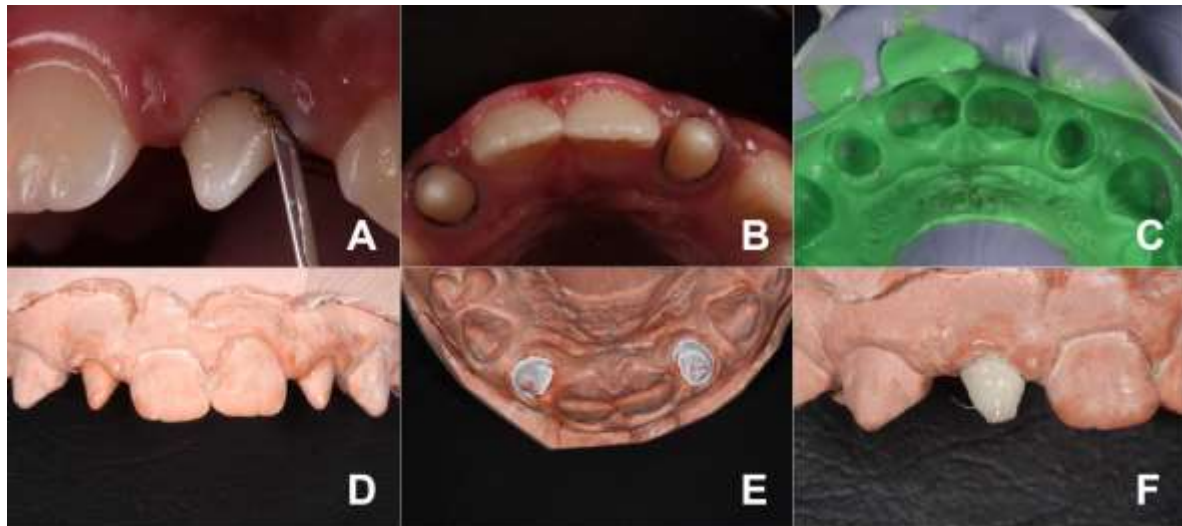
Source: Authors.

After the diagnosis, was indicated an orthodontic treatment, nevertheless the refusal of the parents to use any orthodontic appliance and the technical difficulties to perform procedures in special patients, turn viable choose restorative technics options. Thus, was decided to perform reshape with indirect composite resin due to the familiar economic lower conditions.

Retractor wire was placed onset on both incisor conoids and impressions of the upper and lower arches were an addition silicon in order to obtain dental casts (Figure 2A, 2B, 2C and 2D). Color selection and photographic record was performed after molding. No preparation was performed on the teeth, because they had anatomy that favored the installation of the crowns.

The composite resin crowns were made by the dentist directly on the plaster model, prioritizing re-anatomization and color characterization with composite resin Opallis of dentin and enamel color (Figure 2E, 2F and 3A).

Figure 2. A) Insertion of the retractor wire; B) Clinical aspect after the use of retractor threads; C) silicone mold; D) Made plaster model; E) Isolation of teeth and F) Insertion of composite resin.



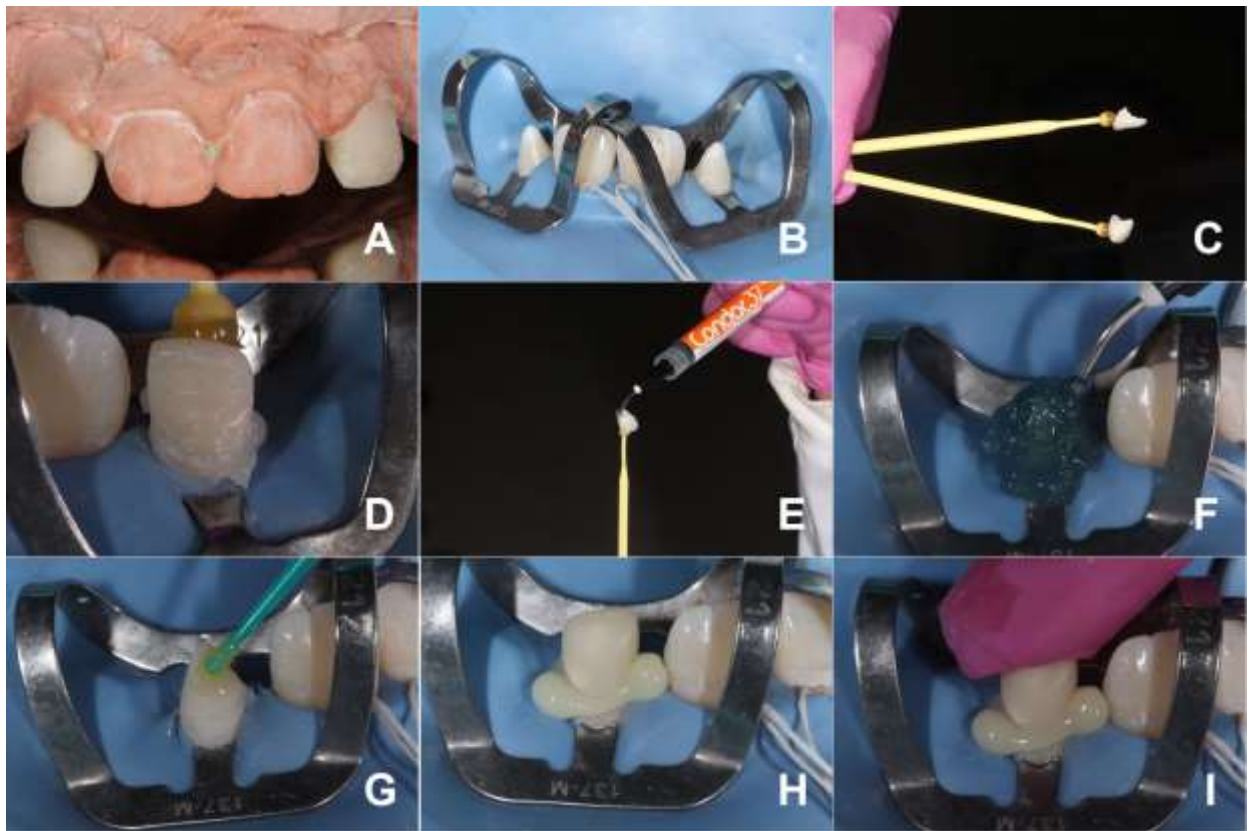
Source: Authors.

In the next clinical session, the crowns adaptation test was performed in the oral cavity. The crowns showed great adaptation, then settling for cementation of the parts. Absolute isolation was performed (Figure 3B), followed by prophylaxis with pumice stone and water with the objective of eliminating any residue capable of interfering in the adhesiveness of the piece to the tooth. Then the enamel was conditioned by 37% phosphoric acid (Condac 37, FGM Produtos Odontologicos, SC, Brasil) for 30 seconds and washed for twice the time. Drying with air jets and application of adhesive (Ambar APS, FGM Produtos Odontologicos, SC, Brasil) followed by photopolymerization. The crowns were prepared for cementation by conditioning with 37% phosphoric acid (Condac 37, FGM Produtos Odontologicos, SC, Brasil) on their internal walls for 10 seconds, followed by washing and drying with air jets and silane Prosil (FGM Produtos Odontologicos, SC, Brazil) application (Figure 3B, 3C, 3D, 3E, 3F and 3G).

The resin cement used was Allcem Vernee (FGM Produtos Odontologicos, SC, Brasil) (Figure 3H and 3I). Previously the cementation was performed color choice using Allcem Vernee Tryin paste, avoiding that the color of the cement after polymeriation do not interfere in final result. The ciment was placed inside the crow so that the set (piece/cement) carried to the tooth, followed by digital pressure, occurred extravasation of the material. This allows the

tooth/restoration interface to be filled by the cementing agent. Finally, the photopolymerization was carried according to the manufacturer, and removal of excesses. After cementation, the occlusion was checked with carbon paper. Figure 4 shows the final result of crown cementation.

Figure 3. A) Composite resin crowns in the plaster model; B) Absolute isolation; C) Adhesive tip applicators; D) Proof of the crown on the tooth; E) Cementing agent; F) Acid conditioning; G) Application of the adhesive; H) Positioning the crown and I) Digital pressure.



Source: Authors.

Figure 4. Final clinical aspect.



Source: Authors.

4. Discussion

The restoration of anterior teeth, there are many factors to be considered that depend on the patient's expectations and the expertise of the dentistry (Bello & Jarvis, 1997). Depending on the clinical situation found, there are several treatment options to restore shape, aesthetics and function, such as orthodontic treatment, laminated facets, ceramic crowns or composite resin restorations. (Busato et al., 2006; Oquendo, Brea & David, 2011).

Thus, the technological advancement of adhesive systems has allowed professionals to use minimally invasive techniques, providing aesthetic and functional transformations, restoring harmony and shape of teeth (Mount & Ngo, 2000; Gondo, Araujo-Júnior & Baratieri, 2005).

In this case, the treatment of choice was through re- anatomization of the conoid teeth using indirect resin composite restorations, offering the patient an economical, efficient alternative and possible posterior adjustments, in addition to allowing the preservation of dental tissue (Holanda, Simões & Khalili, 2006).

Faced with the refusal of parents for orthodontic treatment, we had a limitation, in which diastema were not completely closed. To achieve good results in closure of diastemas, several aspects should be considered. The adequate diagnosis and treatment planning should be firstly weighed (Furuse, Herkreth, Franco, Benetti & Mondelli, 2007; Mondelli, 2003).

In this situation, was necessary to take consider the limitations of pediatric patients with disabilities. The fact that the restoration is made outside the mouth provides a shorter chair time, which in this case was important for management of patient (Sampaio, César & Martins, 2004).

During esthetic rehabilitation planning, the dentist must opt for minimally invasive procedures whose objective is to preserve the dental structure, especially in Pediatric Dentistry, in which the care of babies and special patients requires speed and efficiency (Peres, Peres & Silva, 2005).

On the other hand, it is worth emphasizing that a large number of patients with disabilities can be treated in the clinic. It is fundamental that the professional has technical and scientific knowledge about some of the most common problems that affect them, as well as patience and readiness, being able to solve aesthetic problems (Peres et al., 2005).

5. Conclusion

It is concluded that the rehabilitation of the fractured elements of this patient was only possible due to routine consultations and structured in order to meet her needs, adequately reestablishing aesthetics and function of the stomatognathic system.

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