

REANATOMIZATION OF TWO CONOID TEETH IN A RIGHT UPPER CENTRAL INCISOR REGION - CASE REPORT

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Abstract: The search for a harmonic smile has advanced considerably. It is known that the influence of the smile on the social life of the human being is extremely important. This way, individuals have sought the field of dentistry more frequently to obtain increasingly straight and white teeth. Dental anomalies have always been present in society, and have been gaining more prominence for escaping what is considered normal. The present study aims to report a clinical case in which the patient has two morphologically conoid teeth, in place of the permanent right maxillary central incisor. The restorative technique chosen was the freehand technique with the aid of a polyester strip, considering that it is a faster and more accessible procedure for the patient's socioeconomic conditions. The entire clinical stage was carried out at the UMJ private dental institution (Centro Universitário Mário Pontes Jucá. A satisfactory result was obtained, restoring the patient's self-esteem and the ability to smile.

Keywords: Conoid tooth, composite resins, operative dentistry, aesthetics.

INTRODUCTION

With the advancement of social networks and the consumerist market, the standard of beauty imposed by society has become increasingly visible. In recent years, the search for perfection in smile aesthetics has grown considerably, taking into account that technology has been used in favor of increasingly less invasive procedures that deliver more satisfactory results.

The smile considered acceptable is the one in which the individual has aligned teeth, with a harmonious shape and with an increasingly white color. In fact, teeth with these characteristics directly influence self-confidence and self-esteem, making the person feel safe when smiling. When it comes to children, this line of thought about the

harmonic smile is also followed, considering that any anomaly, agenesis or other alteration influences the child's social life, especially when they are of school age.

Dental anomalies can be classified as congenital, genetic or acquired. Having variations in number, size, structure and shape anomalies. According to Silva (2020), congenital anomalies, such as conoid teeth, directly interfere with the appearance of the smile. A dental anomaly is understood as a variation or deviation of a characteristic or anatomical structure, compared to normality. In focal or localized microdontia, a single tooth is smaller than normal.

Conoid teeth affect approximately 8.4% of the population, being more prevalent in women, with a higher incidence in the permanent dentition and in the upper left hemiarch (Cunha, et al., 2013). The most frequently affected tooth is the maxillary lateral incisor, with a cone-shaped crown over a root that is usually of normal length. The mesiodistal diameter is reduced, and the proximal surfaces converge to the incisal edge (NEVILLE et al., 1998).

The maxillary third molar is in second place in the frequency of microdontia involvement, followed by supernumerary teeth. A relatively significant portion of the population has malformation or congenital lack of some dental element. Such anomaly can compromise the esthetics of the smile (inadequate shape, diastema) and cause occlusal dysfunctions, such as: loss of incisal and/or canine guide, causing functional and emotional disorders.

In most cases, there is a need for a multidisciplinary treatment, involving different specialties of dentistry such as orthodontics, dentistry and periodontics. The purpose of this junction is to analyze certain complications related to the patient's occlusion so that there is no damage to the

tooth (fractures) and supporting structures and, later, complications to the case (PECK, 2016).

In the case in question, there are two conoid incisors in place of the upper right central incisor, whose crowns have a conical morphology, giving rise to the denomination of conoid incisors and making the case unique.

For a good aesthetic and functional result, there are numerous alternatives that the dental surgeon can use when faced with situations of conoid teeth. Porcelain veneers and confections of single crowns, for example, are excellent alternatives, in which functionality and aesthetics are present. However, they are considered invasive, promoting a certain wear of the healthy tooth structure, in addition to a high cost.

On the other hand, there are composite resins, which, associated with the use of adhesive systems, aim to restore naturalness, color, shape, function and harmonize the smile, with minimal or no wear to the healthy tooth structure. Also, in addition to the simpler procedure, it eliminates the laboratory step, resulting in a more affordable and faster price.

Thus, the present work aims to report the clinical case of functional and aesthetic rehabilitation of a patient with two homologous conoid maxillary teeth, instead of the permanent central incisor.

CASE REPORT

Patient YNM, female, 13 years old, sought the UMJ Private Dental Institution (Centro Universitário Mário Pontes Jucá). The very embarrassed child, spoke little, was accompanied by the mother who complained about her daughter's dissatisfaction with her smile, due to the presence of two "sharp and ugly" teeth in front of her mouth, and this made her daughter not happy. I managed to make friends in high school. During the anamnesis, clinical examination (Figure 1)

and radiographic examination (Figure 2 and 3), congenital absence of the upper right central incisor was observed, and that in its place there were two anomalous teeth with changes in shape, showing conoids, which harmed the aesthetics and harmony in the anterior region.



Figure 1- Physical appearance of conoid teeth.

Source: Author's file.



Figure 2- Periapical radiograph of conoid teeth.

Source: Author's file.



Figure 3- Panoramic radiograph showing the absence of the upper right incisor.

Source: Author's file.

During the discussion and planning of the treatment plan, the aesthetic and functional transformation of the conoid teeth was chosen, according to the patient's socioeconomic reality. The transformation of the two conoid teeth into a central incisor and a lateral incisor was performed, thus improving the esthetics and harmony of the smile. Therefore, it was decided not to perform any extractions and subsequent orthodontic treatment, which would be the first indication. After making the treatment plan, it was explained to the mother, who signed an informed consent form authorizing the treatment and publication of this case report.

To rehabilitate the dental elements, we opted for direct reanatomization using composite resin, using the freehand technique with the polyester strip, as it is a faster procedure, representing a simple, effective and minimally invasive solution for the treatment of these disharmonies. Because, in addition to being a minimally invasive technique, it has a shorter treatment time, and the possibility of its reversibility, if necessary and with an immediate result.

In the first phase of the clinical stage, prophylaxis was performed with pumice stone and prophylactic paste to select the color of the resin. After choosing the shade, small portions of resin were deposited on the tooth, without prior conditioning, light-curing for

20 seconds on the buccal surface to measure the shade. The selected colors were: Dentin Resin-B2 and Enamel Resin-A2.

Finishing the color mapping, relative isolation was performed with the lip opener. It was decided to perform the bevel with the truncated conical diamond bur (F-granulation) on the two conoid teeth. The use of the bevel for composite resin restorations aims to prevent or eliminate the problem of overcontouring, masking the interface, improving the aesthetic result. After the bevel, the enamel buccal surface was etched with 37% phosphoric acid (All prime), the enamel for 30 seconds, then the acid was removed by washing with water. The amber adhesive system (FGM) was applied according to the manufacturer's instructions, then light cured.

With the aid of a polyester matrix (Fava) for the isolation of adjacent teeth, and a Thompson Titulo Titanium resin spatula (LM Instrumental), the first increment of achromatic composite resin (Forma Trans-Ultradente), the palatal shell, was performed. To shape the first tooth, which would be the central incisor, light-curing by buccal and palatal. Then, dentin resin was used making increments throughout the tooth, staying below the bevel line, and finally, increment of enamel composite resin, which covered the other increments, composing the vestibular area of the restoration. Each increment was light cured for 40 seconds. The same operative sequence was performed on the other conoid tooth, but it was performed with the anatomy of a lateral incisor.

With the restoration finished, the finishing was started, removing the excesses on the palatal face using a flame-shaped diamond tip. The definition of the buccal contour in three thirds (cervical, middle, incisal). After two days, polishing was performed using silicone abrasive rubbers of different granulations

(Microdon) to smooth marks on the buccal surface. In order to provide a shine and texture similar to that of the adjacent enamel, a felt disk (Diamond Felts - FGM) was used with diamond paste (Diamond Ac I and II - FGM), obtaining a satisfactory aesthetic, in addition to increasing the self-esteem of the patient child (Figure 4).



Figure 4- Result of the transformation of conoid teeth.

Source: Author's file.

METHODOLOGY

According to Parente (2010), a case report is a detailed description of clinical cases. Containing important features about signs, symptoms and other characteristics of the patient and reporting the therapeutic procedures used, as well as the outcome of the case.

The present work is a case report of a descriptive and qualitative nature. Data collection took place through the detailed anamnesis of a patient diagnosed with two conoid teeth in place of the upper right central incisor. The patient was treated at the school clinic of the Centro Universitário Mário Pontes Jucá – UMJ. This report involves personal and confidential information contained in the medical record, requiring the completion of the Free and Informed Consent Form.

DISCUSSION

Aguirre; Noborikawa (2015) stated that for the resolution of cases of conoid teeth, alternatives such as direct and indirect restorations can be used; The patient's age, aesthetic expectations and economic condition must be taken into account for such a decision.

It is worth highlighting the importance of a humanized and individualized treatment, according to the need, the reality of that patient and professional ethics. In this clinical case report, the child's mother did not have socioeconomic conditions for orthodontic treatment, after an extraction, since the first indication would be to perform the reanatomization of a maxillary central incisor of a conoid tooth, while the other would result in an extraction, to finally refer her to an orthodontist for occlusal alignment.

However, based on the young woman's reality, the direct restorative technique was chosen with composite resins on the two conoid teeth, which was an easier, faster, more effective and low-cost treatment. In addition, in this procedure, further adjustments can be made, allowing perfect control of the rehabilitation, allowing the aesthetic-functional restoration and restoring self-esteem.

In this context, with technological advances, the use of composite resins has obtained excellent aesthetic results, providing an improvement in the mechanical characteristics, increasing the abrasion and compression resistance of these materials, as well as a low polymerization contraction, in addition to the changes in the aesthetic characteristics, with different degrees of opacity and translucency.

CONCLUSION

In view of the case presented, it is concluded that for the rehabilitation of a conoid tooth

there are several types of techniques that must be chosen according to the individuality of each case.

The freehand technique used in the above case allowed the reanatomization of the teeth with anomaly and also allowed the patient to leave the UMJ clinic extremely satisfied with the result obtained, giving her back the confidence to speak and smile.

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