

## Case Report

# Primitive Resources for Dental Reposition – A Case Report

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## Abstract

Dental trauma is defined as a lesion of variable extension, intensity and gravity, of accidental or intentional origin, that may cause damages to the victims and bring prejudice to the quality of life of children and adolescents. The present case report refers to an adolescent that used prosthesis for ten years, sculpted by herself in cattle ribs, because she was not adequately attended by the health staff. Dental treatment consisted of removal of the remaining roots and installation of an immediate prosthesis and three months later, a final prosthesis was made. Dental clinicians should take a careful history when evaluating young patients, treating them in a humanistic way and protecting their rights as a priority group.

## Keywords

- Peroxide bleaching agents
- Restorative materials
- Surface roughness

## INTRODUCTION

Dental trauma is a challenge for the clinician, especially in young patients, as it can lead to early tooth loss that compromises oral function, esthetics, self-esteem, and alters the long-term plan of care for the victim. The consequences of trauma produce not only biological damage, but also psychological impairment [1,2]. Trauma is becoming increasingly prevalent among the population, and may become an important problem in public health [3, 4].

Since early civilizations, men have searched for the best way to substitute lost teeth, using various materials and techniques, including artificial or natural teeth, ivory, animal bone, wood and other materials, adjusted to the neighboring teeth by means of ligatures with silk wire, gold or horsehair [5]. At the beginning of the XVIII century, when French and English dentists began to apply artificial crowns to the dental root, a rudimental porcelain tooth was invented [6]. After this, notable progress occurred in the development of dentistry techniques during the last century, with considerable advances in the manufacture of dental crowns [6].

The aim of the present case report is to attract attention to the fact that, even in the XXI century, regardless of the current development in dentistry for teeth substitution, individuals may still be obliged to use primitive resources reminiscent of ancient dentistry, in order to feel included in society and avoid discrimination and segregation due to absent anterior teeth.

## CASE REPORT

A young female patient, 23-years old, melanoderma, sought dental treatment at the University Periodontics Clinic. Intra-oral clinical examination revealed an ulcerated and bleeding alveolar mucosa in the maxilla, involving remaining dental

roots with some plaque accumulation (Figure 1). Radiographic examination demonstrated radiolucent areas involving the roots of the maxillary right canine and maxillary right lateral incisor, suggesting periapical lesions. The patient was asked about the possibility of the existence of another aggression factor in the region, in addition to dental plaque. Demonstrating embarrassment, she reported the use of a prosthesis for more than ten years, made by herself, using a bovine rib as raw material, which was carved using a penknife, and stuck together with Three Bond® glue (Three bond do Brasil Ind. e Com. Ltda, São Paulo, SP, Brazil) (Figure 2, 3, 4). She reported that when she was nine years old, in a household accident, she had fractured all her upper anterior teeth, and had only sought dental care two years later, since she had become the target of jokes from colleagues because of her appearance. At the time of this previous dental appointment, even before she had related her history, she had been severely reprimanded by the dental hygiene technician, who accused her of neglecting her dental hygiene and being responsible for her mouth's situation. Thus, she developed a great aversion and did not seek further dental care. At thirteen years of age, as a result of the discrimination that she suffered

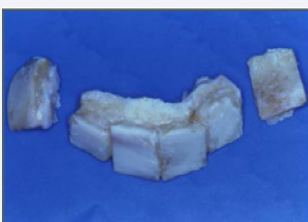


**Figure 1** Ulcerated and bleeding alveolar mucosa in the maxilla, involving remaining dental roots.

from friends and the community, she decided to make her own prosthesis. After several attempts, using different materials such as beans, garlic and polyvinyl chloride (PVC) pipes, she used a steer rib removed from a bovine carcass found in the backyard of her residence. Using a penknife, she cut the ribs into small squares, two major and two minors. She made a dough of cooked rice mixed with glue, and attached the apparatus to her remaining dental roots. Satisfied with the aesthetic result (Figure 5), she informed her family that she had been rehabilitated in a dental clinic. Subsequently, she always maintained a stockpile of cattle ribs and glue for maintenance and constantly carried a pocket mirror, in case the prosthesis became loose. Despite these practices, she still shied away from social acquaintance and only sought professional dental care because her family had discovered the prosthesis and required that she visited a dentist. Dental treatment consisted of removal of the remaining roots and installation of an immediate prosthesis. Three months later, a final prosthesis was made (Figure 6). After a year, the patient reported that she had become a happier and more confident person. She declared that if she had been sure she would be so well understood by health professionals, she would have looked for help much before.



**Figure 2** Primitive prosthesis carved from a cattle rib. Note the mass of cooked rice mixed with glue that the patient utilized as a manner of compensating her class III condition.



**Figure 3** Sections of the primitive prosthesis.



**Figure 4** Primitive prosthesis in the position of the occlusion. Note the bad condition of oral health in the patient (cervical caries lesions).



**Figure 5** Extrabucal view of the patient's mouth using the primitive prosthesis. Note the natural aspect and the adequate proportion of anterior teeth.



**Figure 6** Extrabucal view of the patient's mouth after the installation of the new prosthesis.

## DISCUSSION

Dental trauma frequently causes permanent damage and may produce problems that last for years after the accident. Moreover, when dental trauma occurs in anterior teeth, most individuals react in a more expressive emotional way, due to the direct association with self-esteem and self-image [7-10]. In the present case, this led to the social exclusion of the patient, and an inadequate approach from a dental hygiene technician forced the patient look for an alternative solution.

Social exclusion [11] and stigma [12] are two prevalent stressors in adolescence; both may weaken self-regulation abilities that can be protective against mental health problems. Besides mental health, protection and quality of life in childhood and adolescence constitute the fundamental principles (of attention and equity), that are legitimated in historical and notorious documents such as the World Universal Declaration of Child Rights (1959) and the International Convention of Child and Adolescent Rights [13,14]. In Brazil, fundamental rights in childhood and adolescence are assured by the Child and Adolescent Statute - ECA. According to the principle of integral protection, children and adolescent must be legally treated as a priority group [15].

It is interesting to point out that, in the case reported in this study, the young girl used a primitive prosthesis carved from a cattle rib, for more than ten years, and that observers did not realize from what material the prosthesis was fabricated. Her ability to sculpt the prosthesis was admirable, and was made according to the principles of the proportion of the anterior teeth, filling the area with a glue and cooked rice mixture, and disguised her class III condition very well.

Despite the asserted rights of children and adolescents, it is lamentable that in the XXI century, a child became a victim of the approach of a health professional and was compelled to

utilize such a primitive technique to feel socially accepted, even with all the modern available resources in prosthodontics and implantology. Dental clinicians should take a careful history when evaluating young patients, treating them in a humanistic way and protecting their rights as a priority group.

## REFERENCES

1. Traebert J, Almeida IC, Garghetti C, Marcenes W. Prevalence, treatment needs, and predisposing factors for traumatic injuries to permanent dentition in 11-13-year-old schoolchildren. *Cad Saude Publica*. 2004; 20: 403-10.
2. Alonge OK, Narendran S, Williamson DD. Prevalence of fractured incisal teeth among children in Harris County, Texas. *Dent Traumatol*. 2001; 17: 218-21.
3. Petersson GH, Bratthall D. The caries decline: a review of reviews. *Eur J Oral Sci*. 1996; 104: 436-43.
4. Cortes MI, Marcenes W, Sheiham A. Impact of traumatic injuries to the permanent teeth on the oral health-related quality of life in 12-14-year-old children. *Community Dent Oral Epidemiol*. 2002; 30: 193-8.
5. Engelmeier RL. The history and development of posterior denture teeth--introduction, part I. *J Prosthodont*. 2003; 12: 219-26.
6. Engelmeier RL. The history and development of posterior denture teeth--introduction, Part II: Artificial tooth development in America through the nineteenth century. *J Prosthodont*. 2003; 12: 288-301.
7. Robertson A, Norén JG. Subjective aspects of patients with traumatized teeth. A 15-year follow-up study. *Acta Odontol Scand*. 1997; 55: 142-7.
8. Damasceno LMCM, Marassi CS, Ramos MEB, Souza IPR. Disturbance in the child behavior from the loss of anterior teeth: case report. *Revista Brasileira de Odontologia*. 2002; 59: 193-196.
9. Shaw WC, Meek SC, Jones DS. Nicknames, teasing, harassment and the salience of dental features among school children. *Br J Orthod*. 1980. 7: 75-80.
10. Helm S, Petersen PE, Kreiborg S, Solow B. Effect of separate malocclusion traits on concern for dental appearance. *Community Dent Oral Epidemiol*. 1986; 14: 217-20.
11. Baumeister RF, DeWall CN, Ciarocco NJ, Twenge JM. Social exclusion impairs self-regulation. *J Pers Soc Psychol*. 2005; 88: 589-604.
12. Inzlicht M, McKay L, Aronson J. Stigma as ego depletion: how being the target of prejudice affects self-control. *Psychol Sci*. 2006; 17: 262-9.
13. United Nations, Convention on the Rights of the Child, Geneva, 1989.
14. Organization Mondiale de la Santé, Rapport Mondial sur la Violence et la Santé, Genève, 2002.
15. BRASIL. Estatuto da criança e do adolescente. Editora Saraiva, São Paulo, 5ª edição. 1995; 210.

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