

Multidisciplinary Approach to the Rehabilitation of Child Patient with Sequelae Due To Donkey Bite over Orofacial Region: A Case Report

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Abstract

We herein report a case of a 9-year-old male patient, victim of donkey bite over Orofacial region when he was 3-year-old. This child had deep wounds with great tissue loss of the face, involving left posterior mandibular region, lower and upper lip and nasolabial sulcus. This patient has suffered psychological trauma, aesthetic and functional implications. The complexity of providing his health care required a challenge for the multidisciplinary work team, to build interdisciplinary practice.

Keywords: Child; Patient Care Team; Bites; Stings

Introduction

According to the World Health Organization, animal bites pose a major public health problem in children and adults worldwide; a significant cause of morbidity and mortality. The health impacts of animal bites are dependent on the type and health of the animal species, the size and health of the bitten person, and accessibility to appropriate health care [1,2].

Tem per cent of soft tissue injuries to the orofacial region occur following mammalian bite [3]. A retrospective study about acute mammalian bite injuries in relation to all pediatric bite injuries treated on inpatient basis showed that was observed that the injuries treated in young children less than 10 years of age are predominantly dog bites, with deep, extended and commonly multiple injuries [4].

In spite of dog bites as the most common cause of injury, cows, camels, donkeys and horses may be responsible for this type of injury. Considering large variety of animal bites, reports about donkey bites to the face are very rare. However, it can cause severe facial disfigurement and large functional and cosmetic consequences [5-7].

The face is the most affected region in children victims of animal

bites. Trauma can leave aesthetic and psychological sequelae to victims, so the treatment must evolve a multidisciplinary team in order to minimize the damages caused [8,9].

We report a case of a child patient with great emotional, aesthetic and functional implications associated with medical history of donkey bite over orofacial region, when he was living in rural area. There is a discussion about damage involving the performance of stomatognathic functions.

Case Report

Ethical considerations: A signed informed consent was obtained from the parents before the treatment. The adequate information included potential benefits and risks associated with the treatment, consent for photography and authorization for scientific publication.

A 9-year-old male white patient was admitted to the Dental School Clinic of a public university located in Recife, northeast of Brazil, with a complaint of difficult chewing, swallowing and speaking and change in sense of taste. He had been referred from a Brazil's Family Health Team serving rural community.

The patient had an adverse past medical history. He was victim of domestic animal aggression (donkey biting on the left side of the face and on the thorax), when he was 3-year-old. The child had multiple scars on his face, with areas of fibrosis, retraction and pigmentation. These scars were associated to deep wounds with tissue loss of the face, involving left posterior mandibular region, lower and upper lip and nasolabial sulcus. This patient has suffered psychological trauma, aesthetic and functional implications. The complexity of providing his health care required a challenge for the multidisciplinary work team, to build interdisciplinary practice.

There was the night terror information presented by the child since the event, with a maximum duration of three hours of sleep a day, and control by the neurologist. Due to the inconsistency of some of the reported data and behavioral changes presented by the patient during the consultations, an evaluation was carried out with physicians, psychologist, family social worker, speech therapists and dentists. The actions have occurred simultaneously, with the considerations described below, particularly directed to the investigation of speech therapy and dentistry, in this stage of attention.

In the speech-language examination, the electromyography analysis of the Maximum Voluntary Contraction (MVC) of the masseter muscles the Electrognatography (EGN) were considered; with new post-intervention investigations estimated. The mandibular myoelectric study showed marked deviations in the electrical potentials on the injured side during chewing (11.3%), indicating compensations on the right side and hyper function at the moment of rest on the left/injured side (76.7%). These findings may compromise the masticatory function and concomitantly and other stomatognathic functions of the patient. Mandibular biomechanics revealed a deviation in the opening of the mandible to the right without correction at the closure. The amplitude laterality was greater for the right side (6.8mm) than for the injured side (0.8mm).

In the dental evaluation, after the anamnesis and with the addition of the orthodontic documentation (face and teeth images, models, cephalometric analysis of profile telerradiographs, and panoramic radiography) the loss of dental units was verified: 75, 74, 73 and 85, caries lesions (36 and 46), cariogenic dental biofilm accumulation localized gingivitis and disharmony in the maxillomandibular relationship and unilateral posterior crossbite (Figure 1) In addition, a process of retraction of the

perioral region on the left side, where the trauma occurred, but without images or reports of substantial bone losses in the mandible. Radiographic images also indicated the presence of the inferior premolars with almost complete root formation without rupturing in the oral cavity.

In order to establish a multidisciplinary planning, preliminary interventions in Dentistry and Periodontics, with lingual frenectomy (Figure 2) and surgical procedure for increasing depth of vestibule in the lower left region. Also the planning of oral rehabilitation with resources of Orthodontics and Functional Orthopedics of Jaws associated with the intervention of plastic surgery.

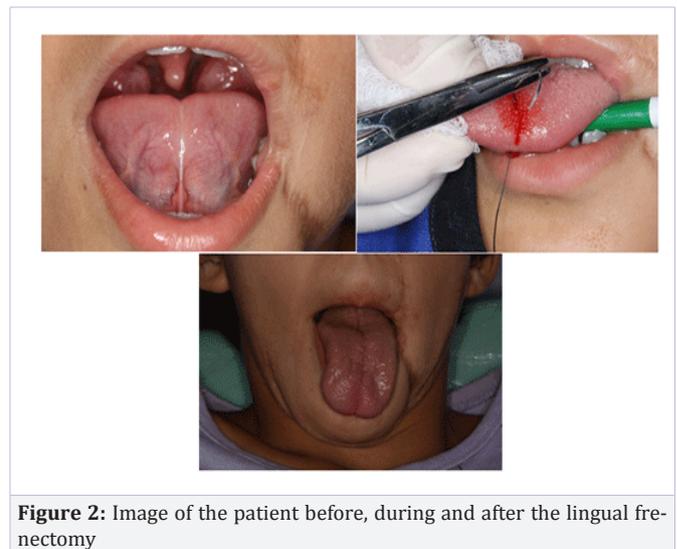


Figure 2: Image of the patient before, during and after the lingual frenectomy

Discussion

The major difficult of the therapeutic approaches was to establish a joint plan of actions, faced with a complex range of aesthetic, functional, neurological and emotional commitments registered.

Studies report have reported particularly the initial approach to victims of animal bite (with early diagnosis and immediate treatment) and mention the possibility of damages and impacts on the quality of life of those affected, but they do not deal with case follow-up over time (need for multiple and directed interventions). Also there are conflicting opinions and results [9,10].

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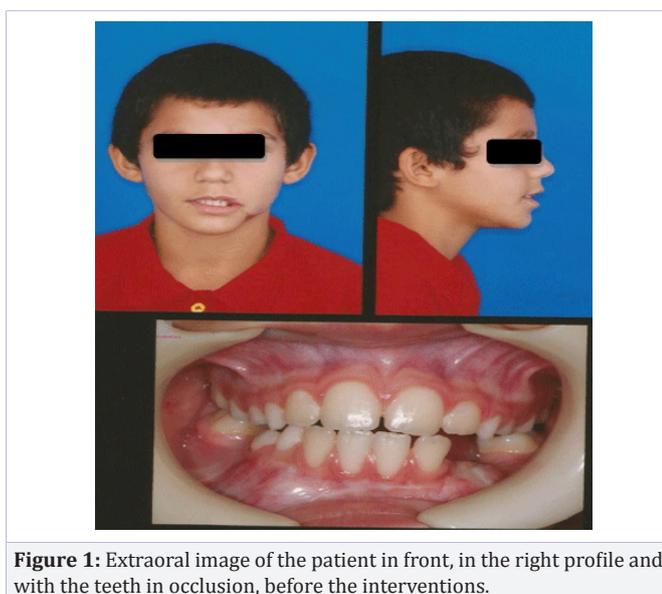


Figure 1: Extraoral image of the patient in front, in the right profile and with the teeth in occlusion, before the interventions.

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